FIG. 1

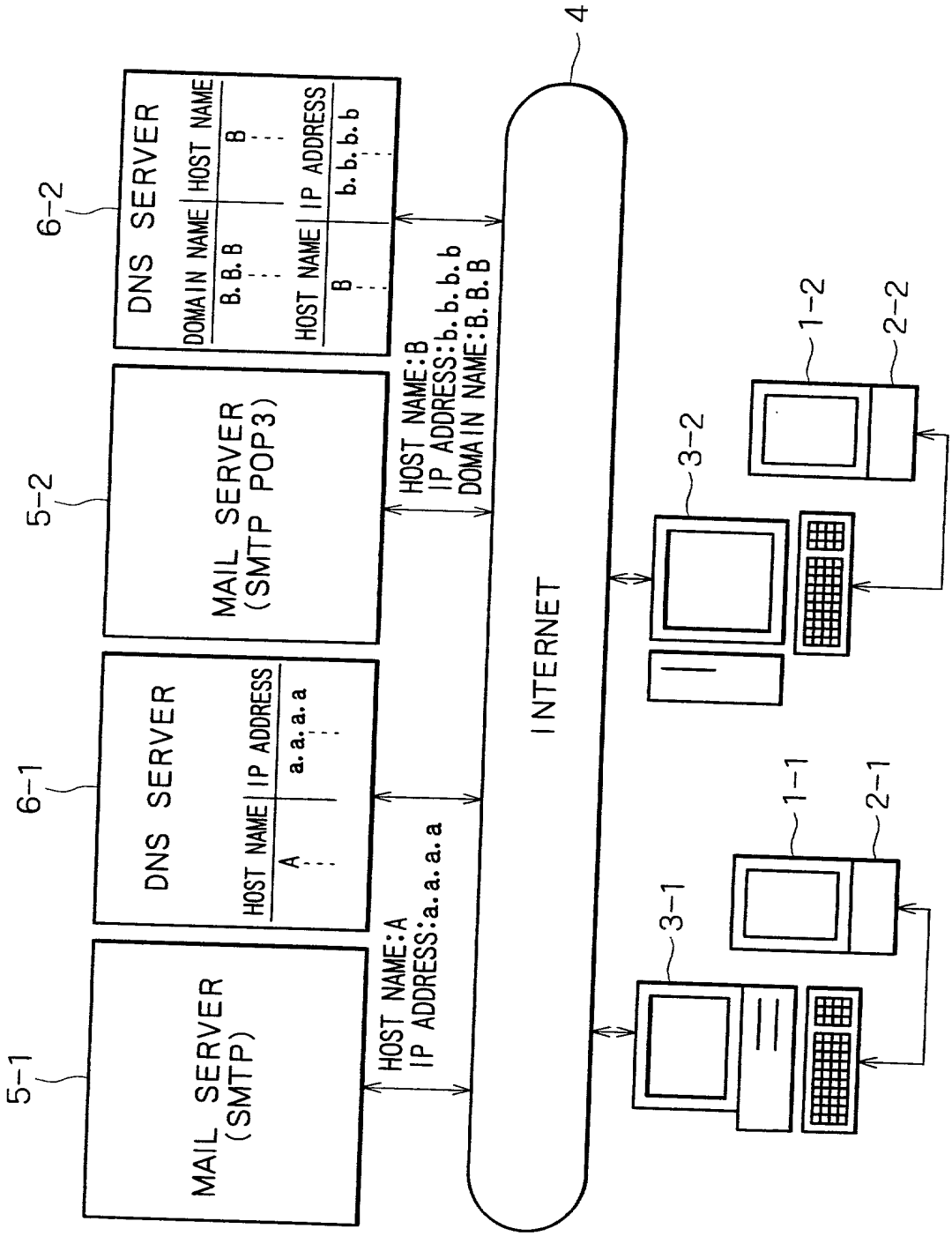

4
INTERNET
5-1
MAIL SERVER (SMTP)
HOST NAME:A
IP ADDRESS:a.a.a.a
6-1
DNS SERVER
HOST NAME | IP ADDRESS
A | a.a.a.a
5-2
MAIL SERVER (SMTP POP3)
HOST NAME:B
IP ADDRESS:b.b.b.b
DOMAIN NAME:B.B.B
6-2
DNS SERVER
DOMAIN NAME | HOST NAME
B.B.B | B
HOST NAME | IP ADDRESS
B | b.b.b.b
3-1
1-1
2-1
3-2
1-2
2-2

FIG. 2

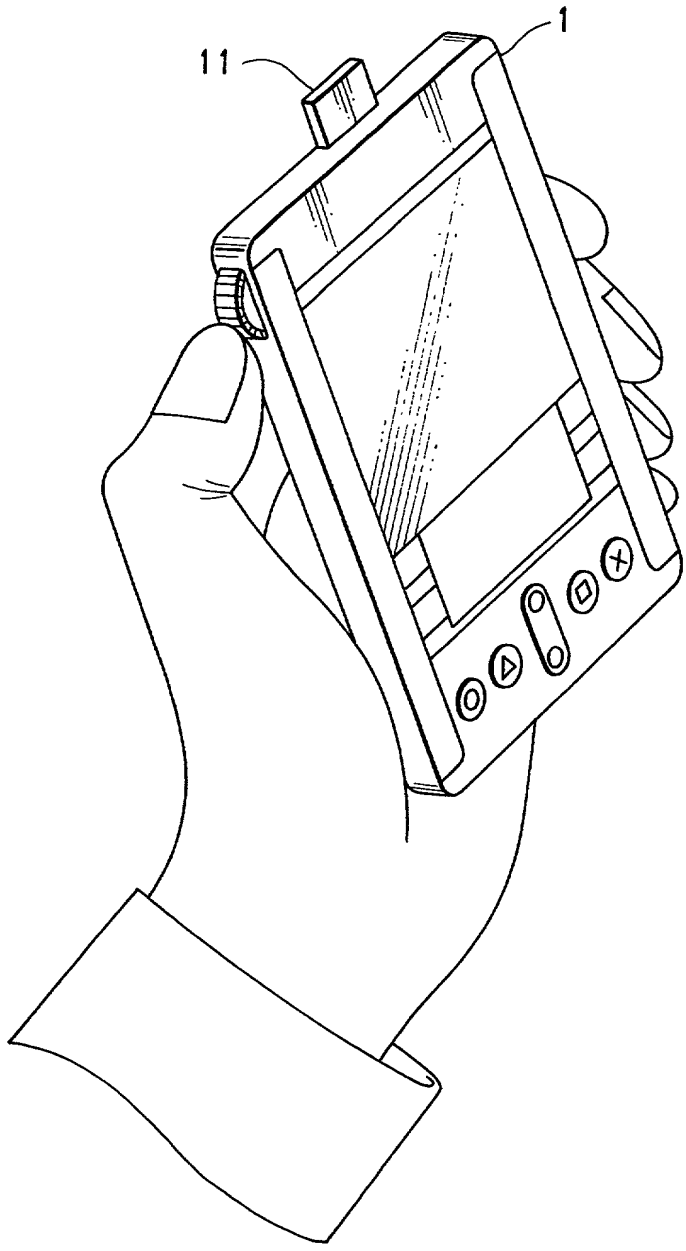


FIG. 3

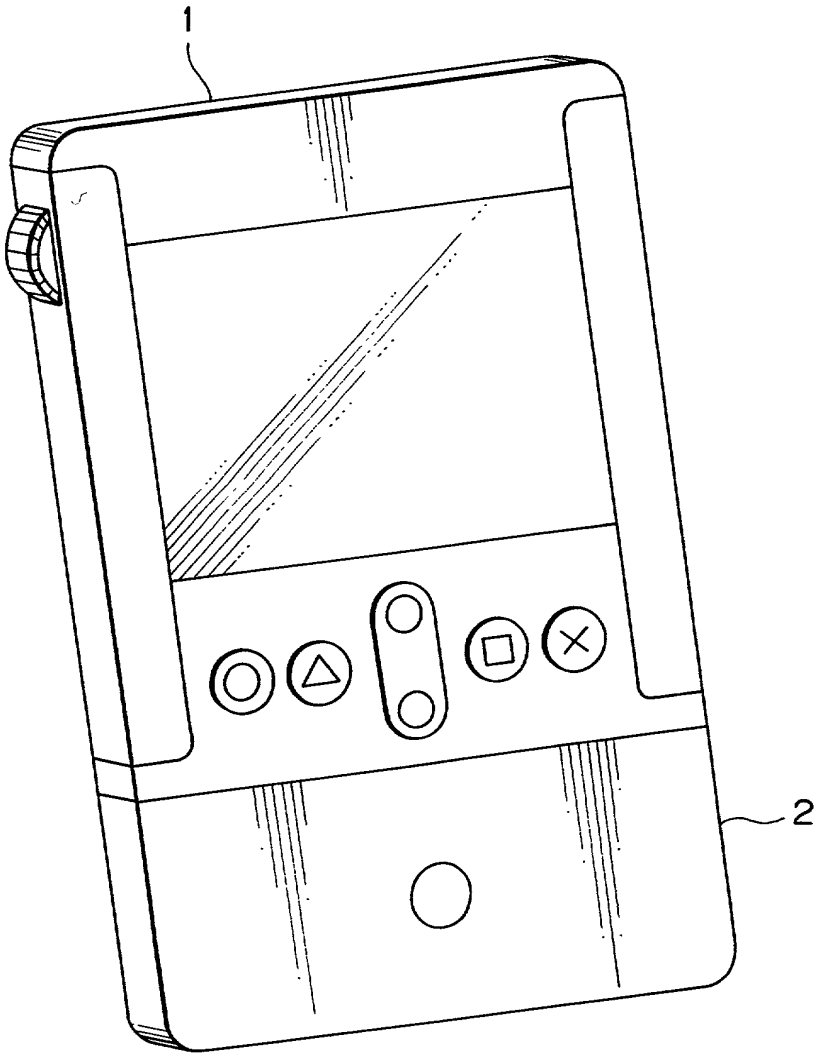


FIG. 4

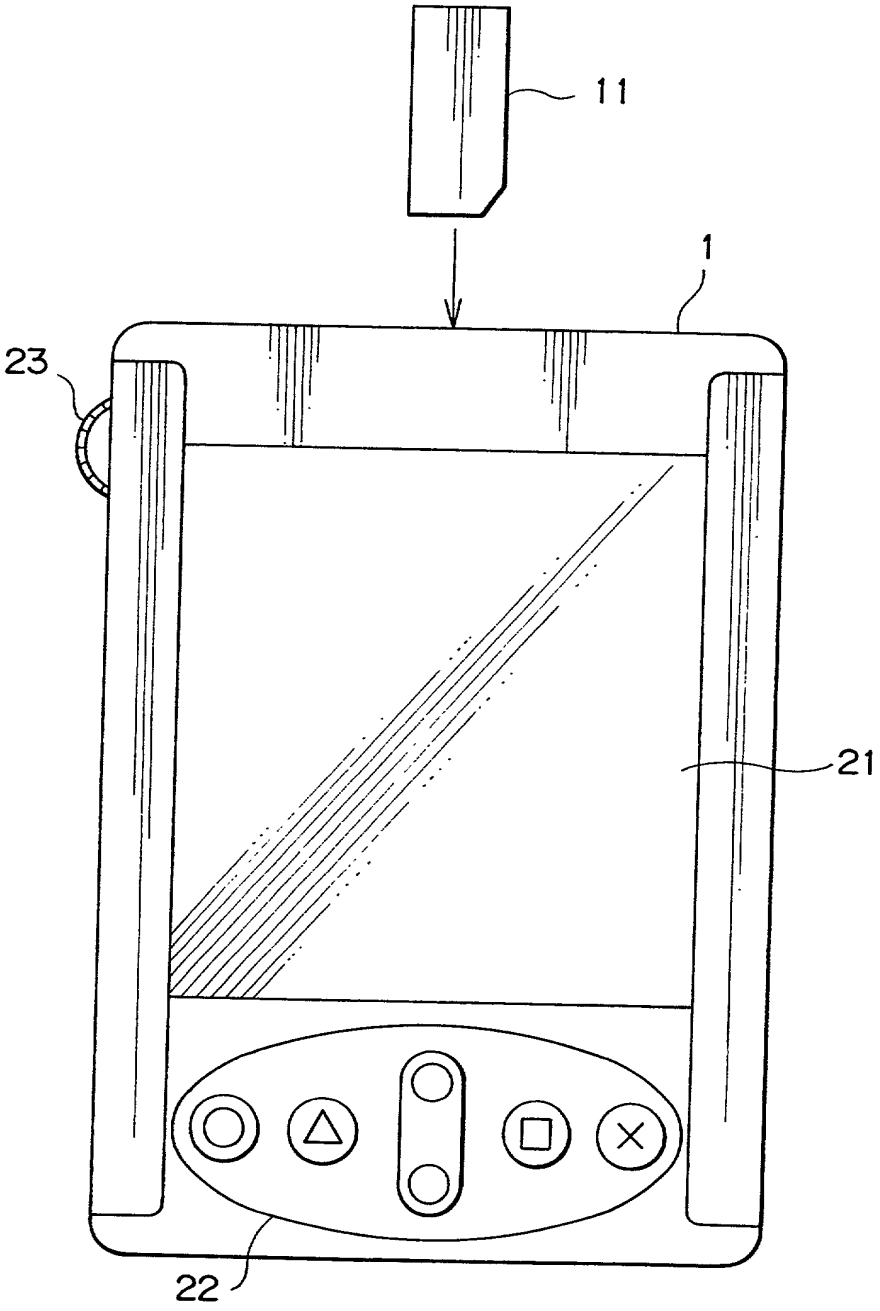


FIG. 5

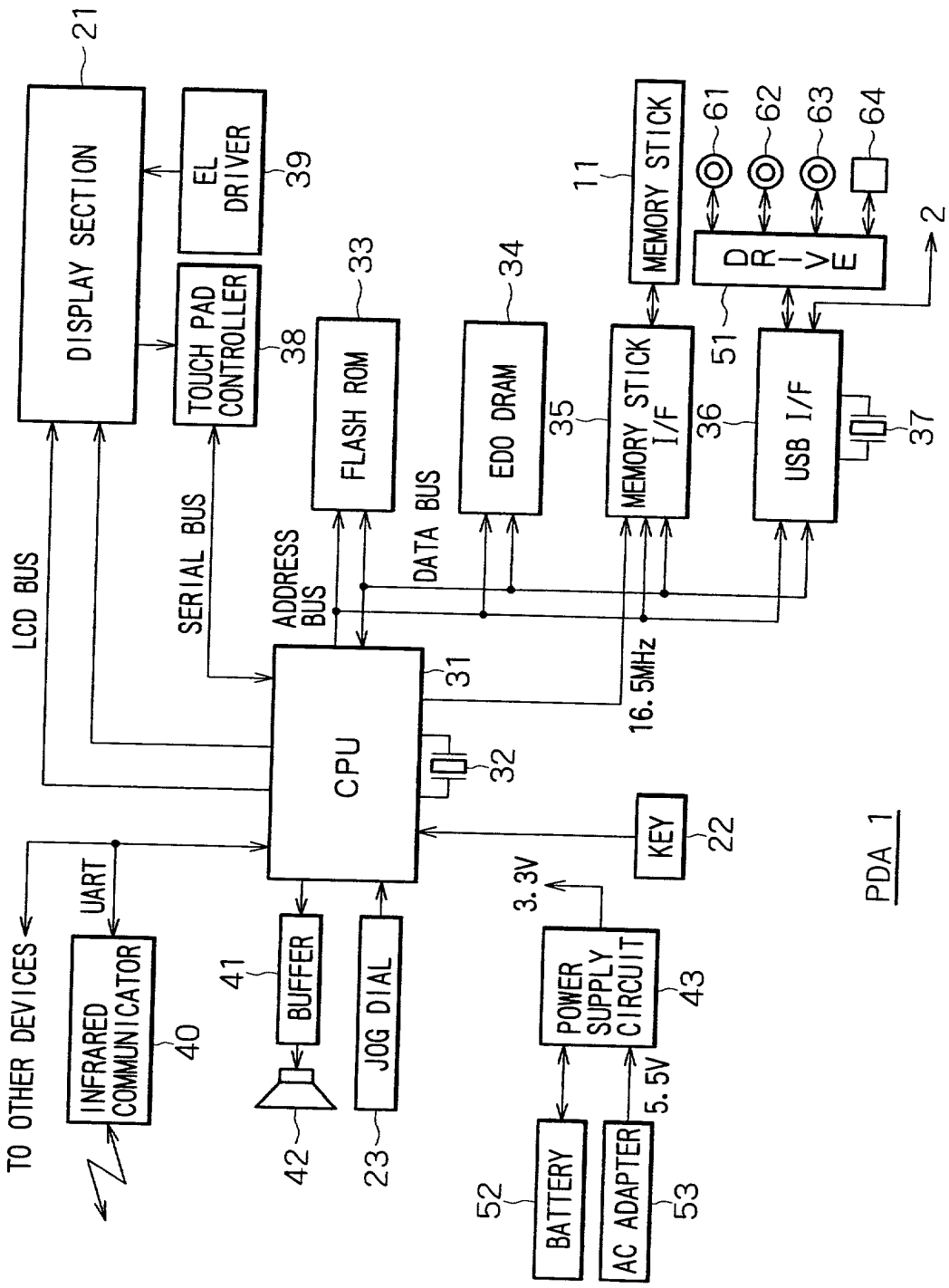

21
DISPLAY SECTION
EL DRIVER
39
TOUCH PAD CONTROLLER
38
33
FLASH ROM
34
EDO DRAM
11
MEMORY STICK
61
62
63
64
D R I V E
2
51
35
MEMORY STICK I/F
36
USB I/F
37
LCD BUS
SERIAL BUS
ADDRESS BUS
DATA BUS
CPU
31
32
16.5MHz
KEY
22
UART
TO OTHER DEVICES
INFRARED COMMUNICATOR
40
41
BUFFER
42
JOG DIAL
23
3.3V
POWER SUPPLY CIRCUIT
43
5.5V
52
BATTERY
AC ADAPTER
53
PDA 1

FIG. 6

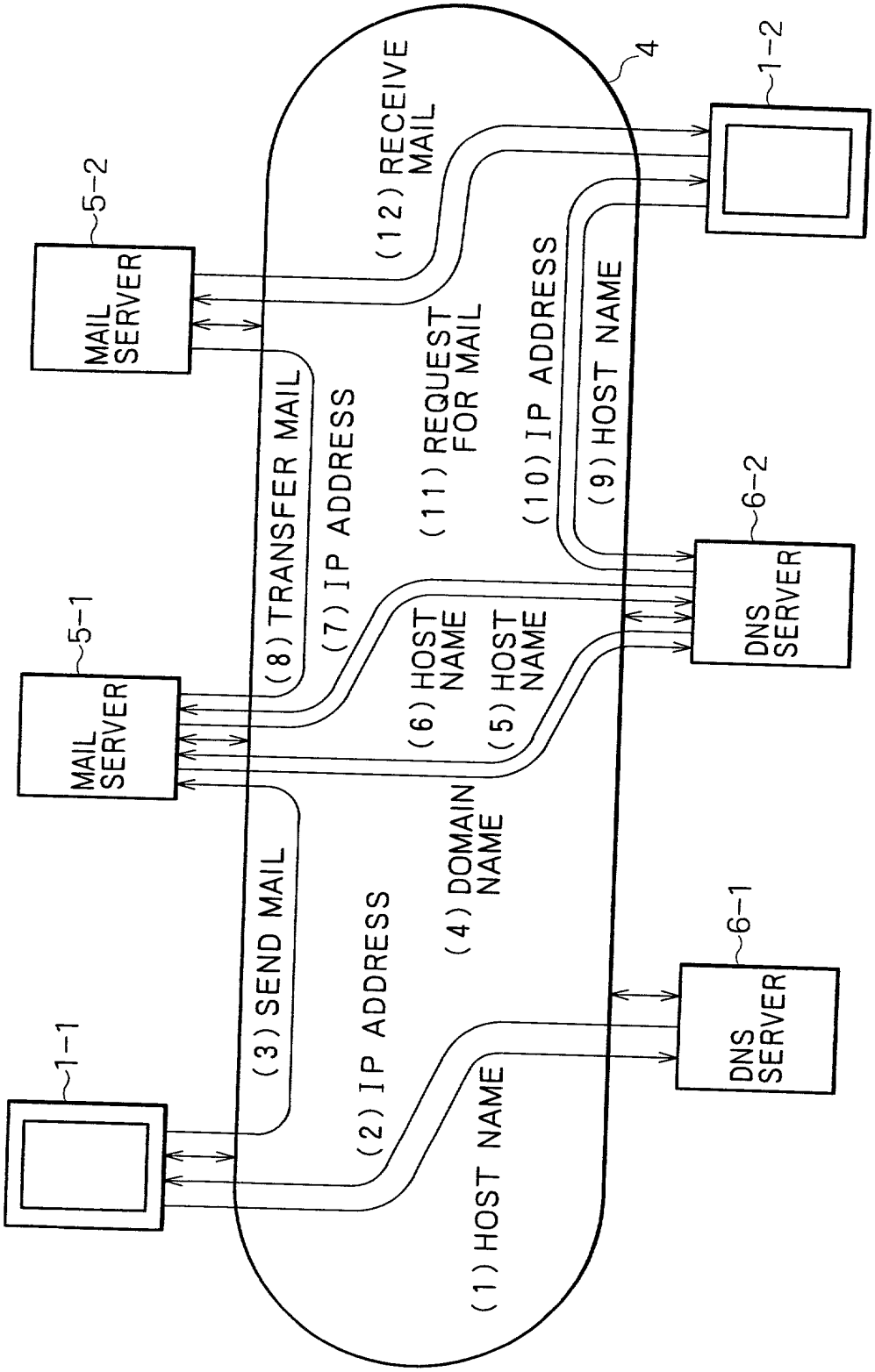

1-1
1-2
4
5-1
5-2
6-1
6-2
MAIL SERVER
MAIL SERVER
DNS SERVER
DNS SERVER
(1) HOST NAME
(2) IP ADDRESS
(3) SEND MAIL
(4) DOMAIN NAME
(5) HOST NAME
(6) HOST NAME
(7) IP ADDRESS
(8) TRANSFER MAIL
(9) HOST NAME
(10) IP ADDRESS
(11) REQUEST FOR MAIL
(12) RECEIVE MAIL

FIG. 7

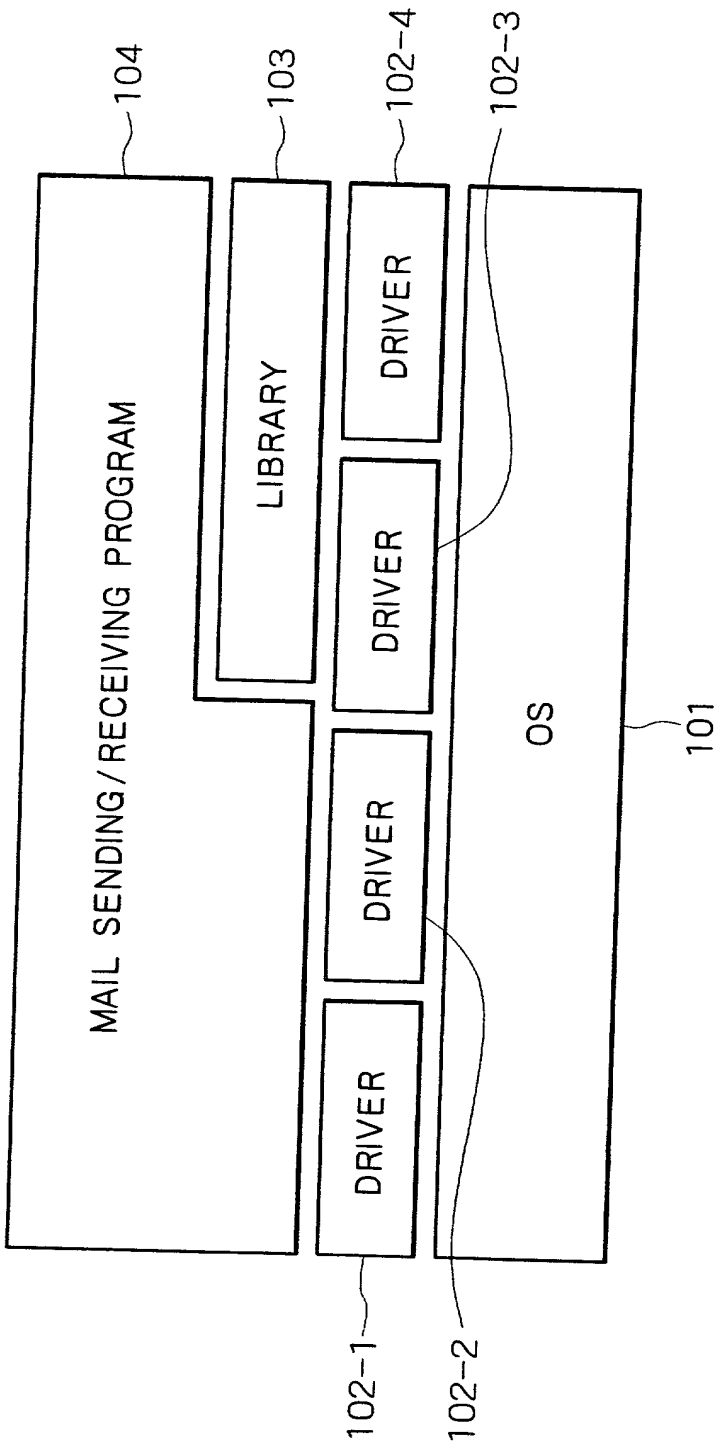

104
103
102-4
102-3
MAIL SENDING/RECEIVING PROGRAM
LIBRARY
DRIVER
DRIVER
DRIVER
DRIVER
OS
101
102-1
102-2

FIG. 8

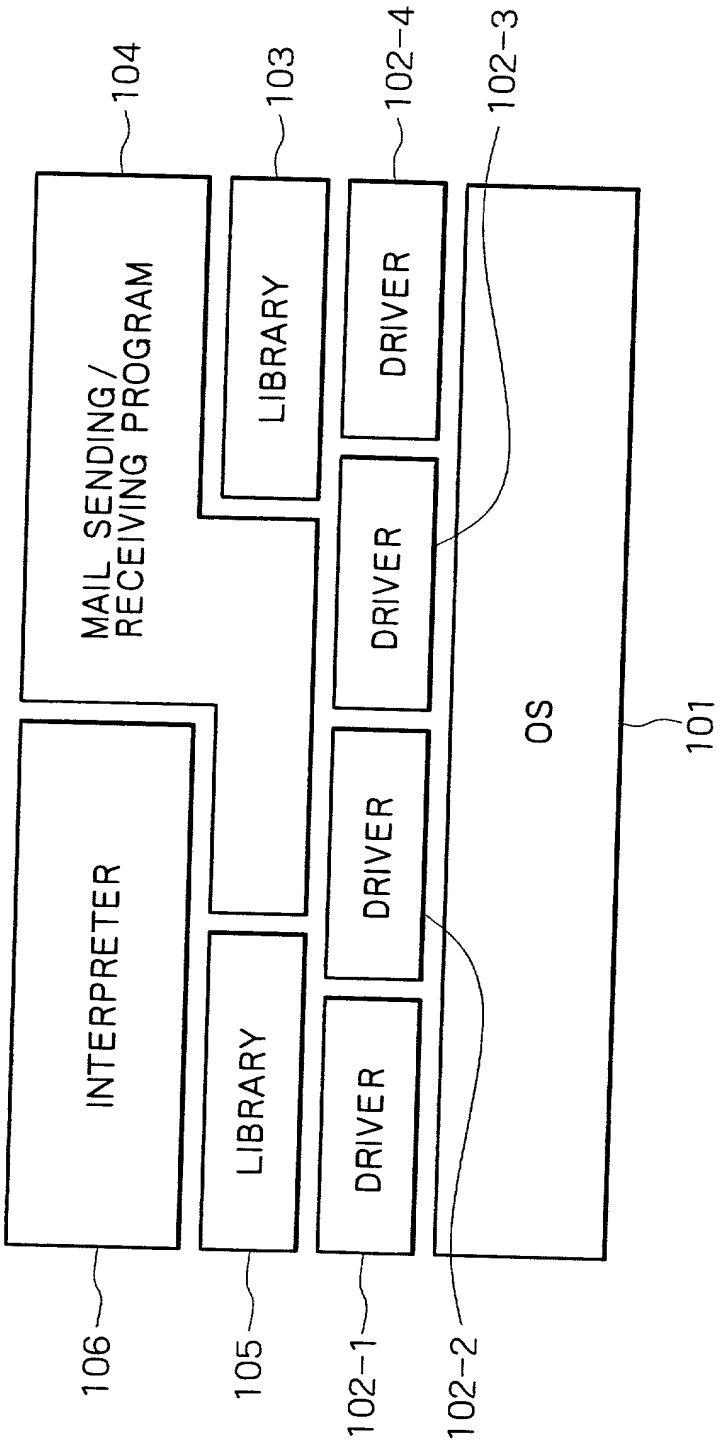

104
103
102-4
102-3
MAIL SENDING/
RECEIVING PROGRAM
LIBRARY
DRIVER
DRIVER
OS
101
INTERPRETER
LIBRARY
DRIVER
DRIVER
106
105
102-1
102-2

FIG. 9

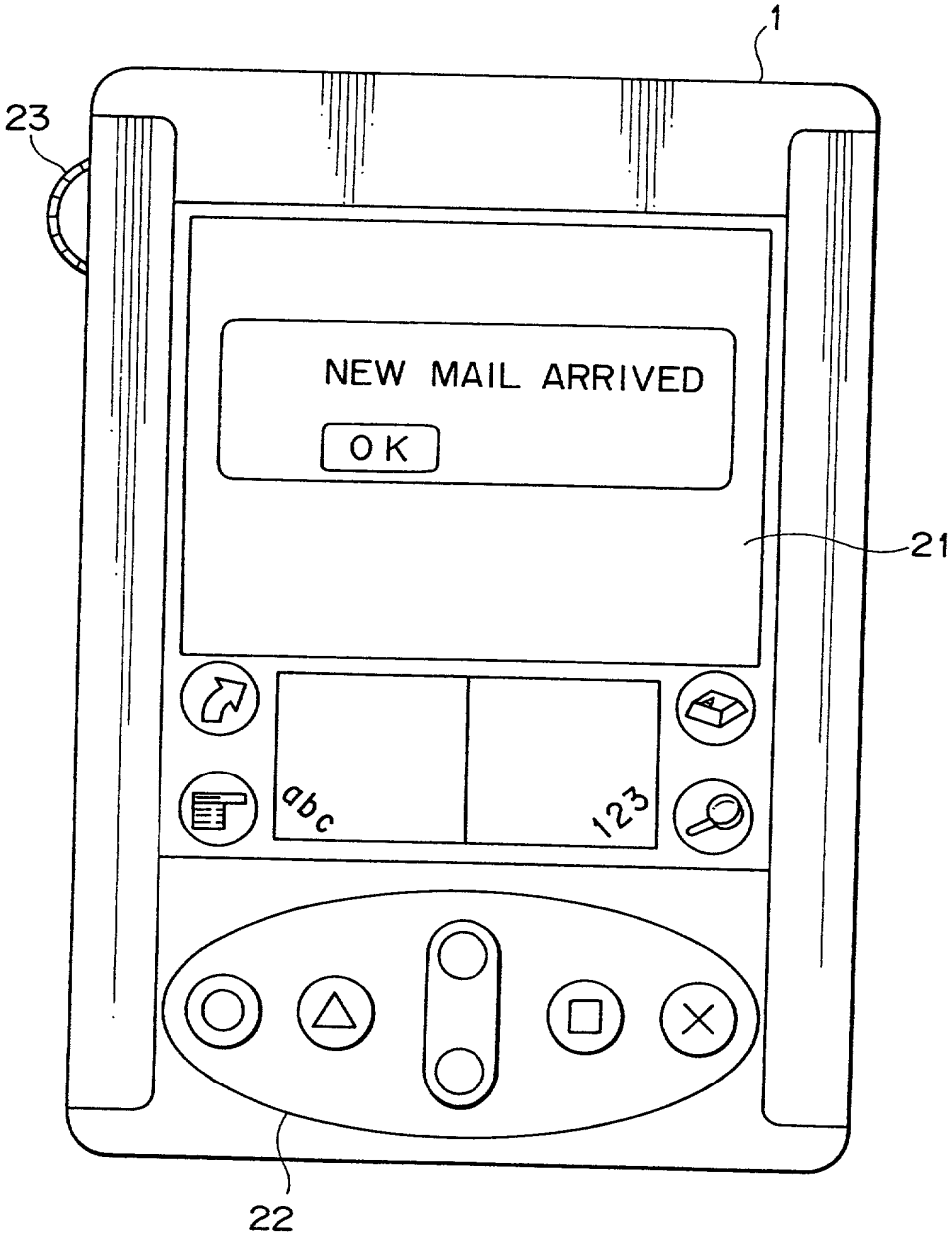


FIG. 10

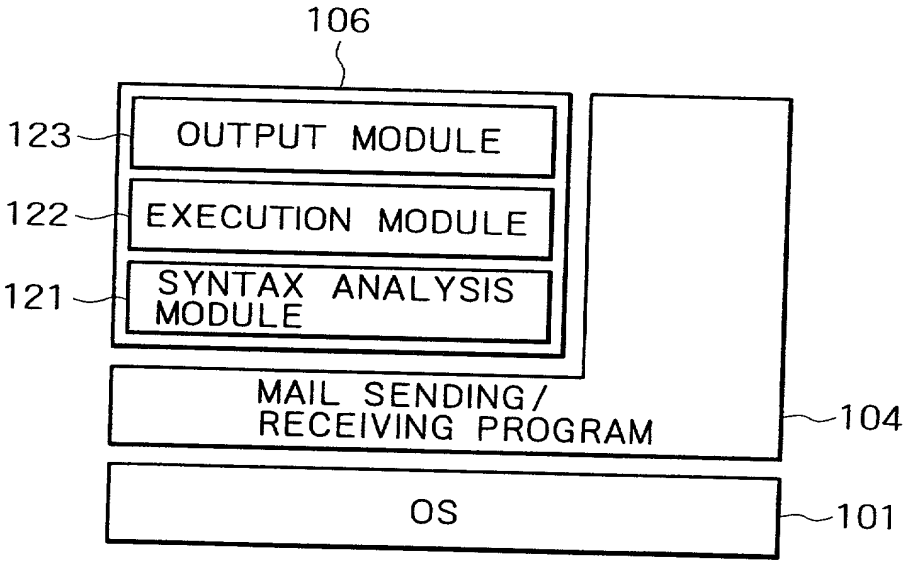

106
123
OUTPUT MODULE
122
EXECUTION MODULE
121
SYNTAX ANALYSIS MODULE
MAIL SENDING/ RECEIVING PROGRAM
104
OS
101

FIG. 11

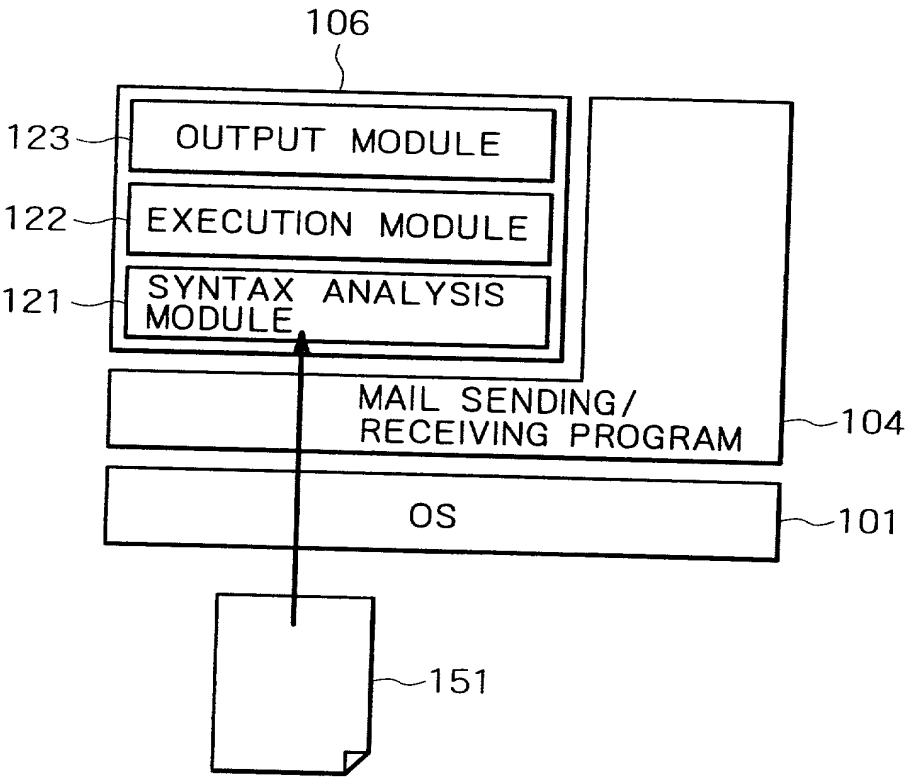

106
123
OUTPUT MODULE
122
EXECUTION MODULE
121
SYNTAX ANALYSIS MODULE
MAIL SENDING/ RECEIVING PROGRAM
104
OS
101
151

FIG. 12

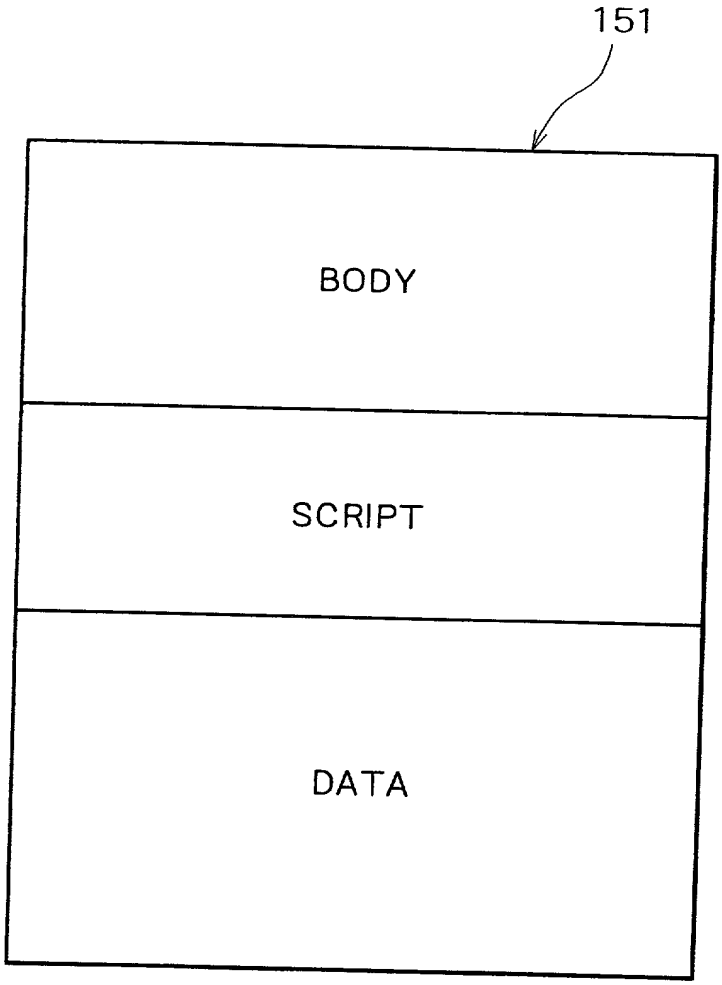


FIG. 13

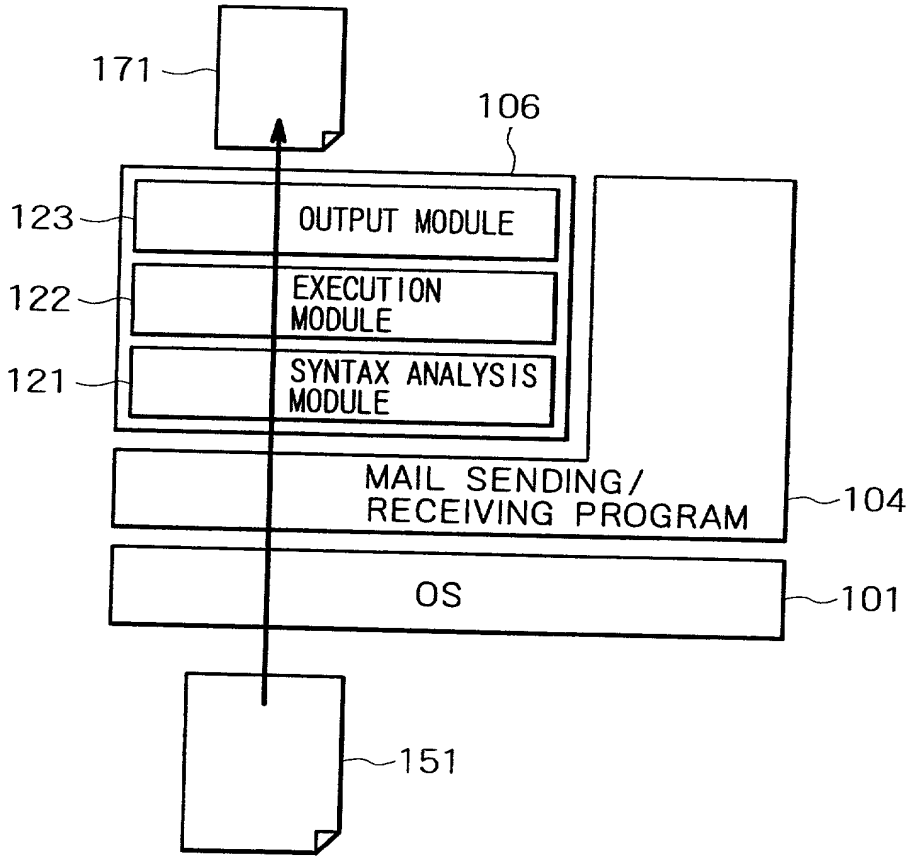

171
106
123
OUTPUT MODULE
122
EXECUTION MODULE
121
SYNTAX ANALYSIS MODULE
MAIL SENDING/ RECEIVING PROGRAM
104
OS
101
151

FIG. 14

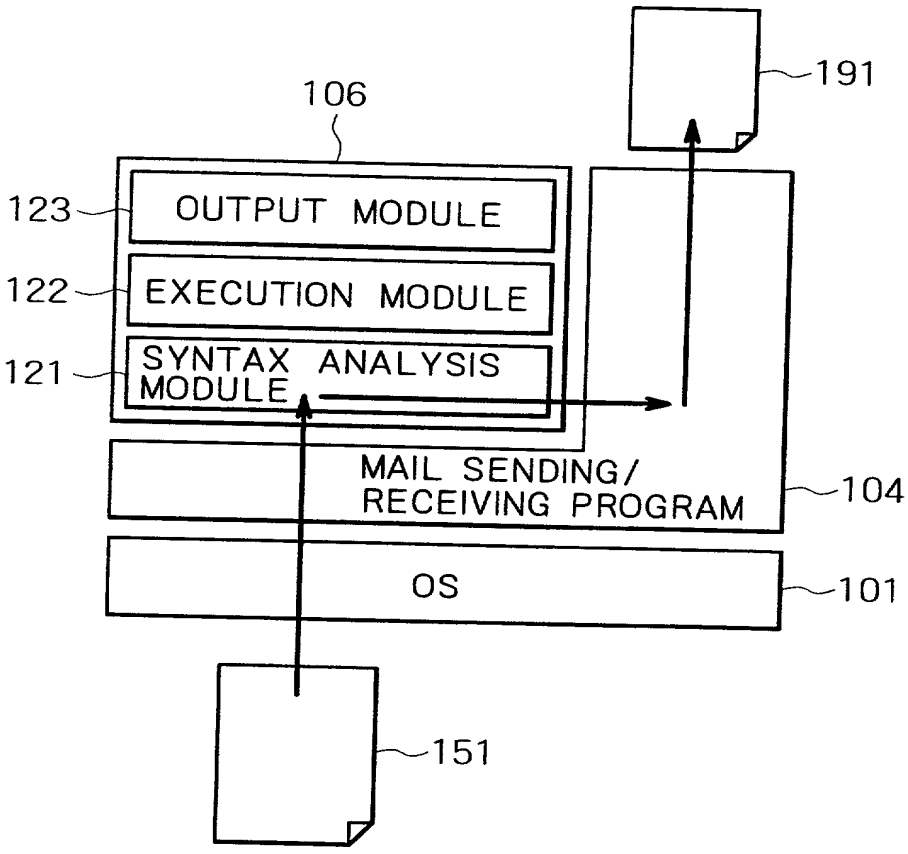

106
191
123
OUTPUT MODULE
122
EXECUTION MODULE
121
SYNTAX ANALYSIS MODULE
MAIL SENDING/ RECEIVING PROGRAM
104
OS
101
151

FIG. 15

BODY

```
To: "Someone" <someone@sony.co.jp>
Subject:othello
MIME-Version: 1.0
Content-Type: multipart/mixed;
boundary="----=_NextPart_000_0011_01BFA9E7.2EE28580"

------=_NextPart_000_0011_01BFA9E7.2EE28580
Content-Type: text/plain;
              charset="iso-2022-jp"
Content-Transfer-Encoding: 7bit

Second move of Othello
```

SCRIPT

```
------=_NextPart_000_0011_01BFA9E7.2EE28580
Content-Type: application/x-emma

<SCRIPT LANGUAGE=emmascript>
function othello() {
        show() ;
}
function ontap() {
        var x = getx() ;
        var y = gety() ;
        if(check(x,y)==false) {
            confirm("error")
            return;
        }
        update(x,y);
        Sendmail(getsender());
        exit;
}
function onload() {
        othello() ;
}
...
</SCRIPT>

------=_NextPart_000_0011_01BFA9E7.2EE28580--

----Next_Part(Wed_Apr_19_11:42:48_2000_705)----
```

FIG. 16

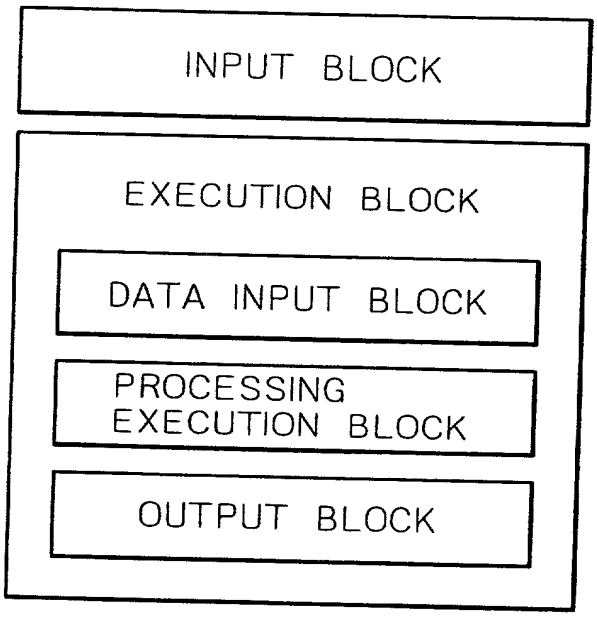

INPUT BLOCK
EXECUTION BLOCK
DATA INPUT BLOCK
PROCESSING EXECUTION BLOCK
OUTPUT BLOCK

FIG. 17

```
------=_NextPart_000_0011_01BFA9E7.2EE28580
Content-Type: application/x-emma

<SCRIPT LANGUAGE=javascript>
function othello() {
        show() ;
}
function ontap() {
        var x = getx() ;
        var y = gety() ;
        if(check(x,y)==false) {
            confirm("error")
            return;
        }
        update(x,y);
        sendmail(getsender());
        exit;
}
function onload() {
        othello() ;
}
...
</SCRIPT>
```

FIG. 18

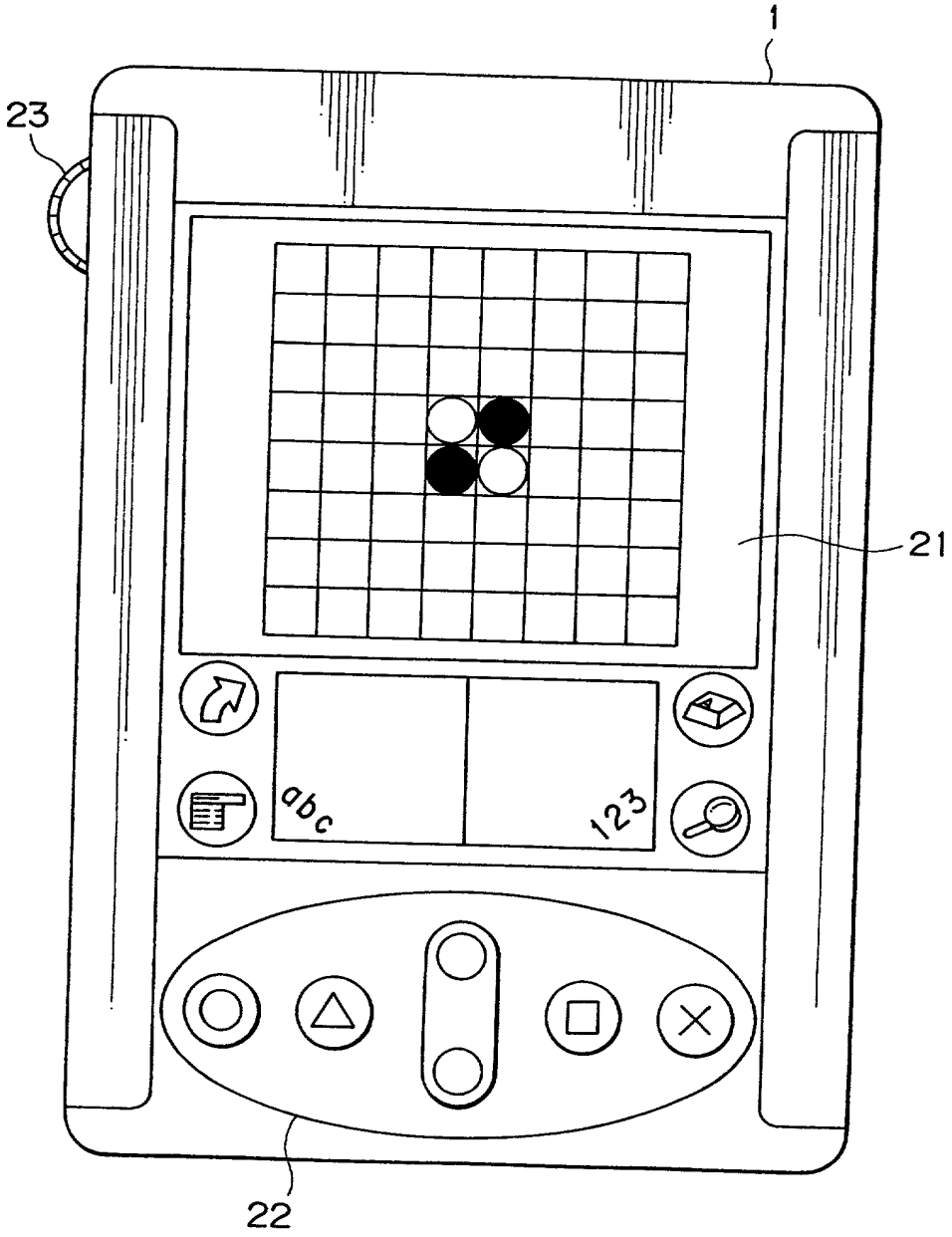


FIG. 19

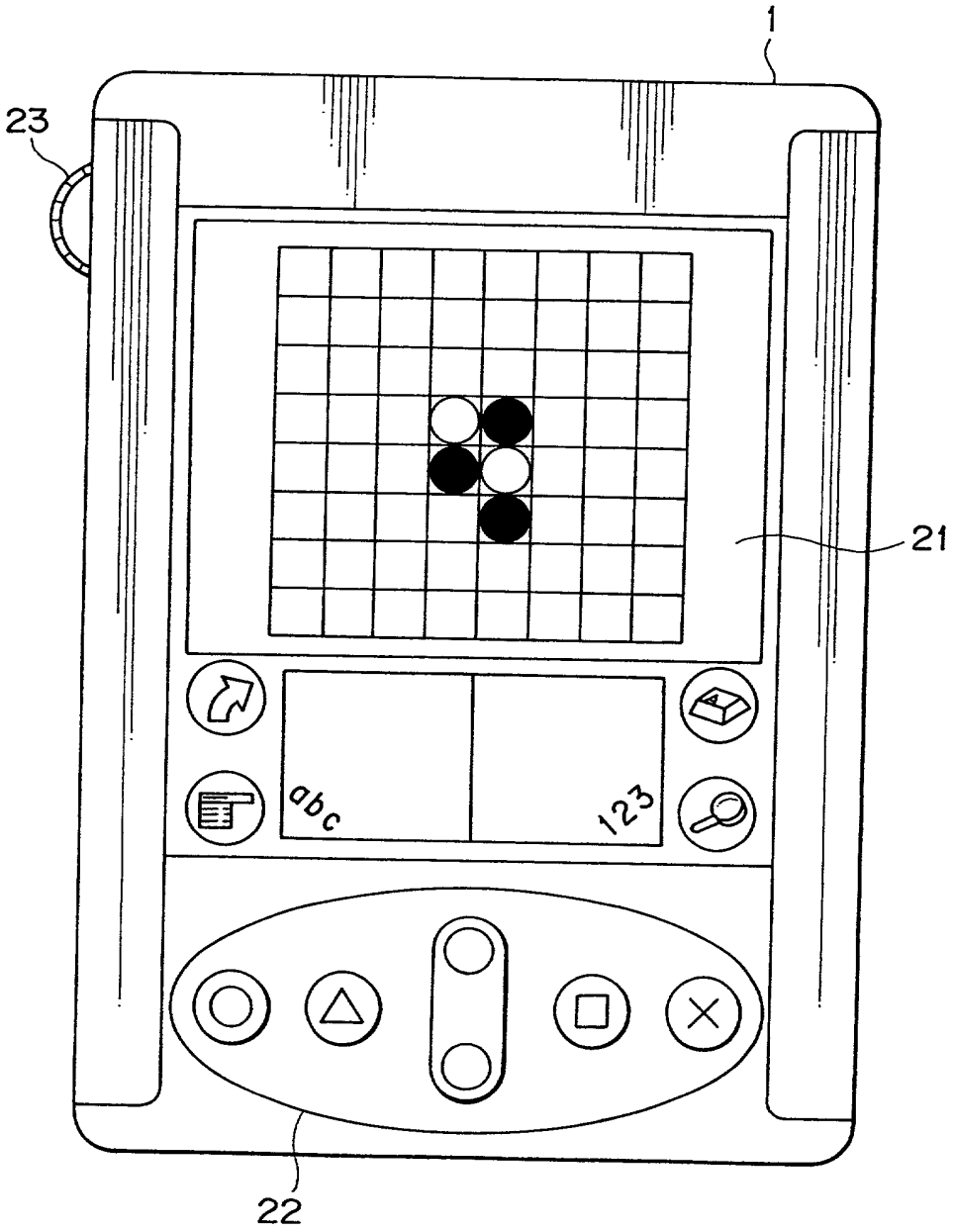


FIG. 20

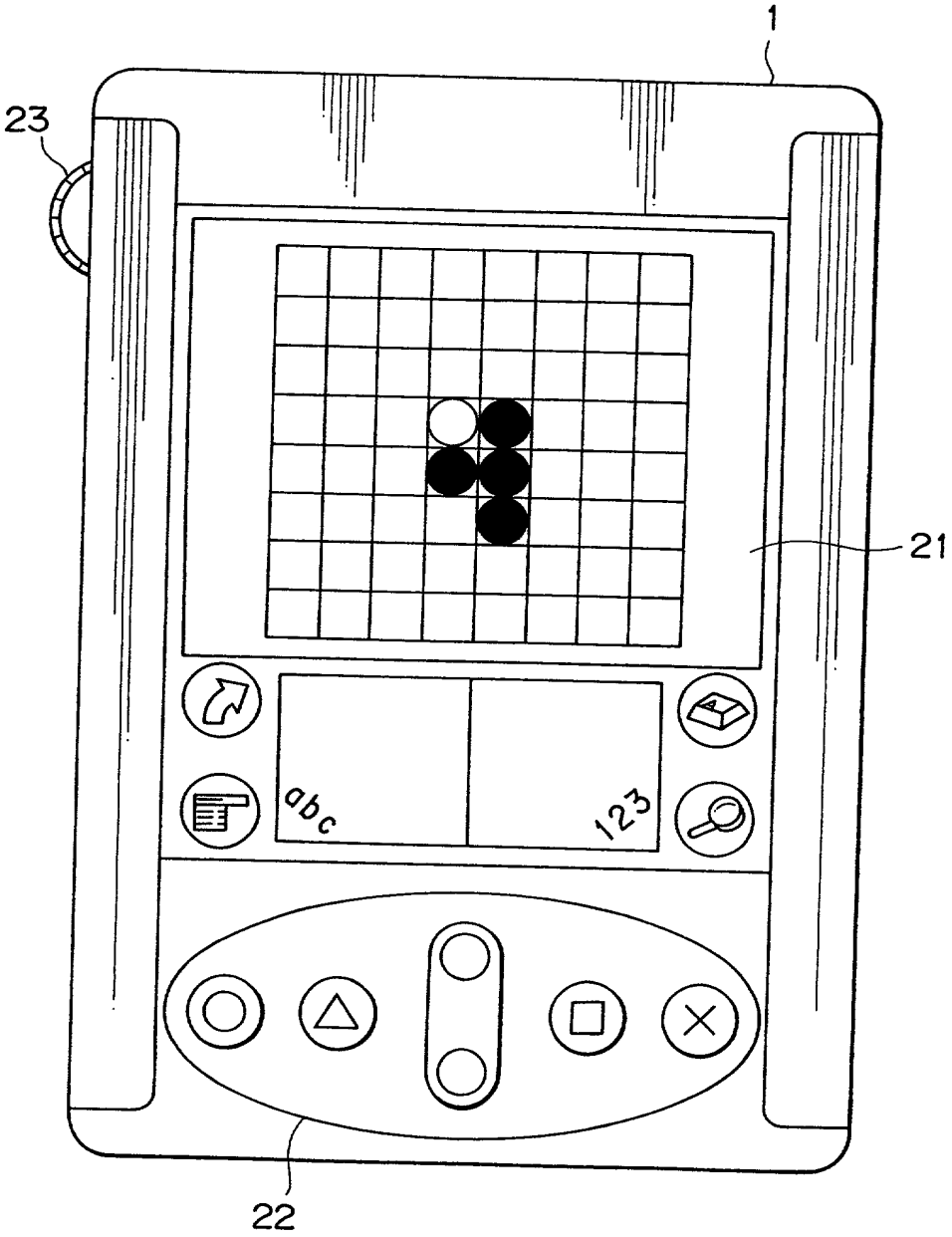


FIG. 21

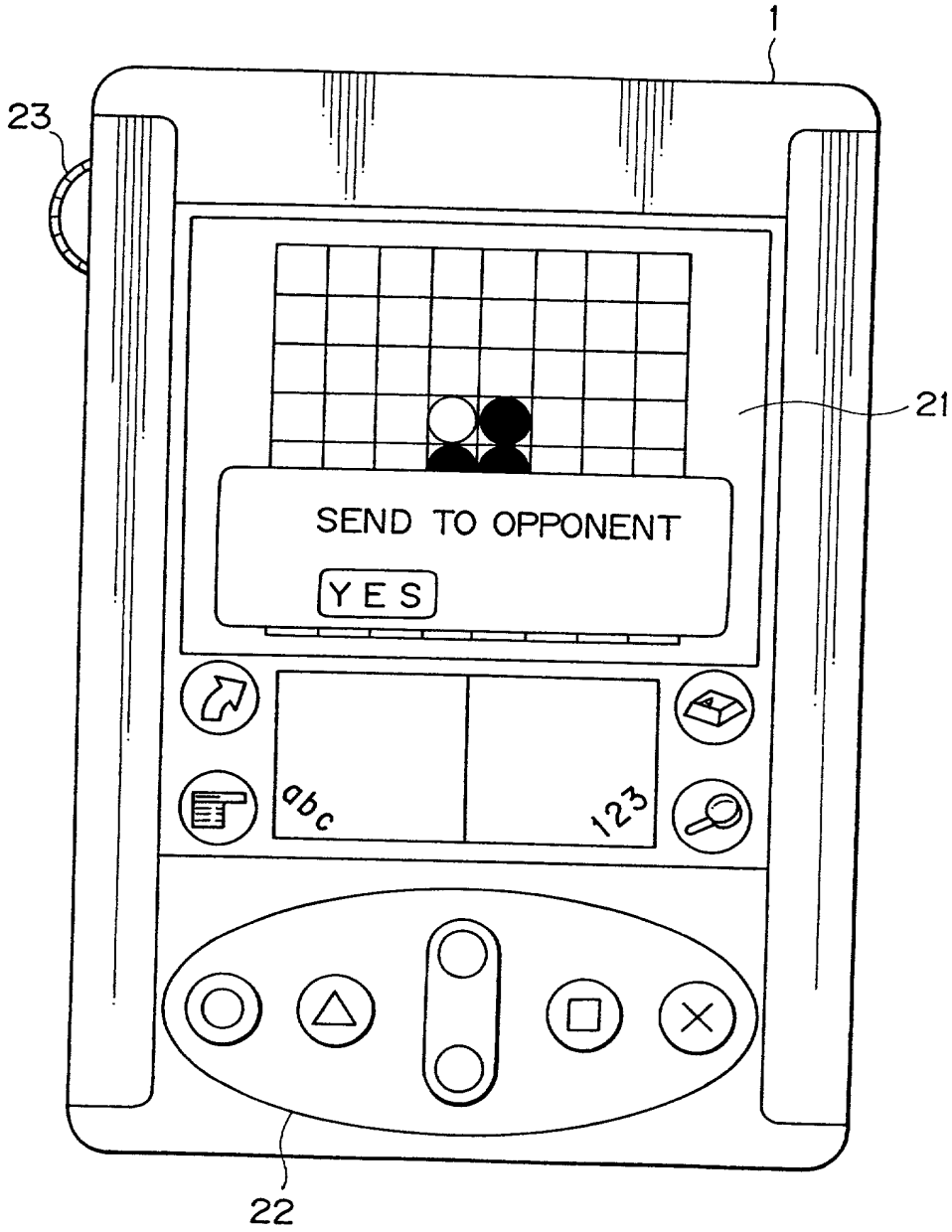


FIG. 22

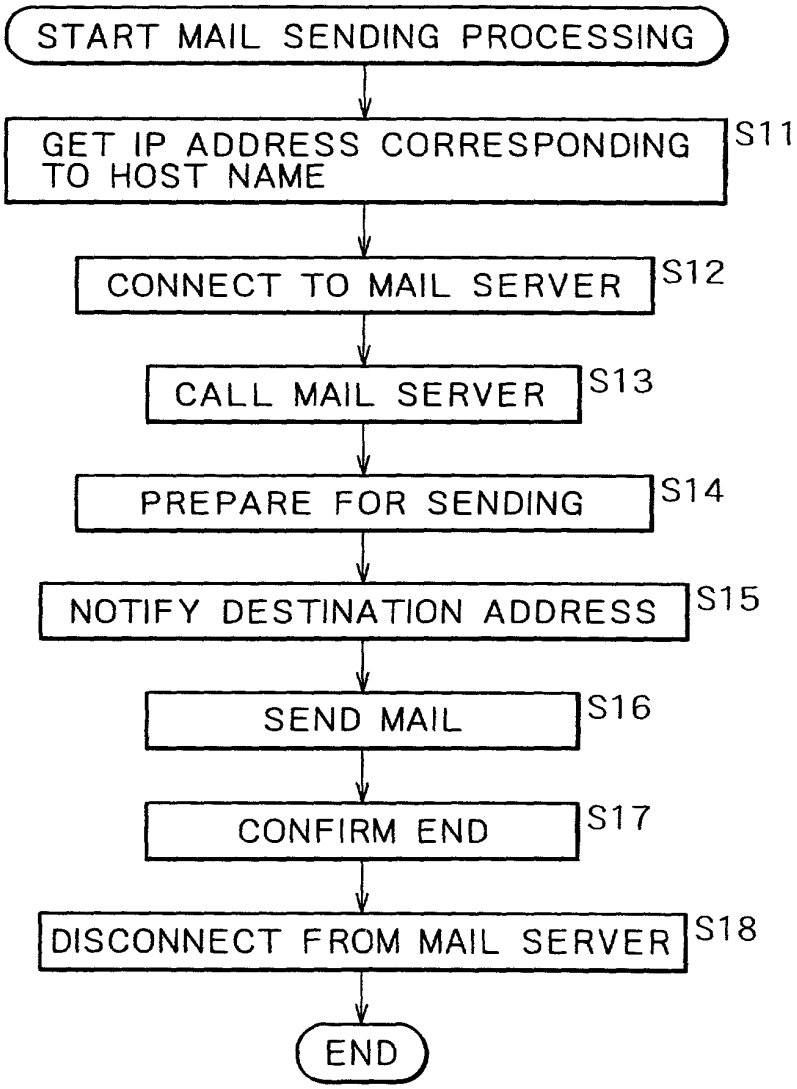

START MAIL SENDING PROCESSING
GET IP ADDRESS CORRESPONDING TO HOST NAME
S11
CONNECT TO MAIL SERVER
S12
CALL MAIL SERVER
S13
PREPARE FOR SENDING
S14
NOTIFY DESTINATION ADDRESS
S15
SEND MAIL
S16
CONFIRM END
S17
DISCONNECT FROM MAIL SERVER
S18
END

FIG. 23

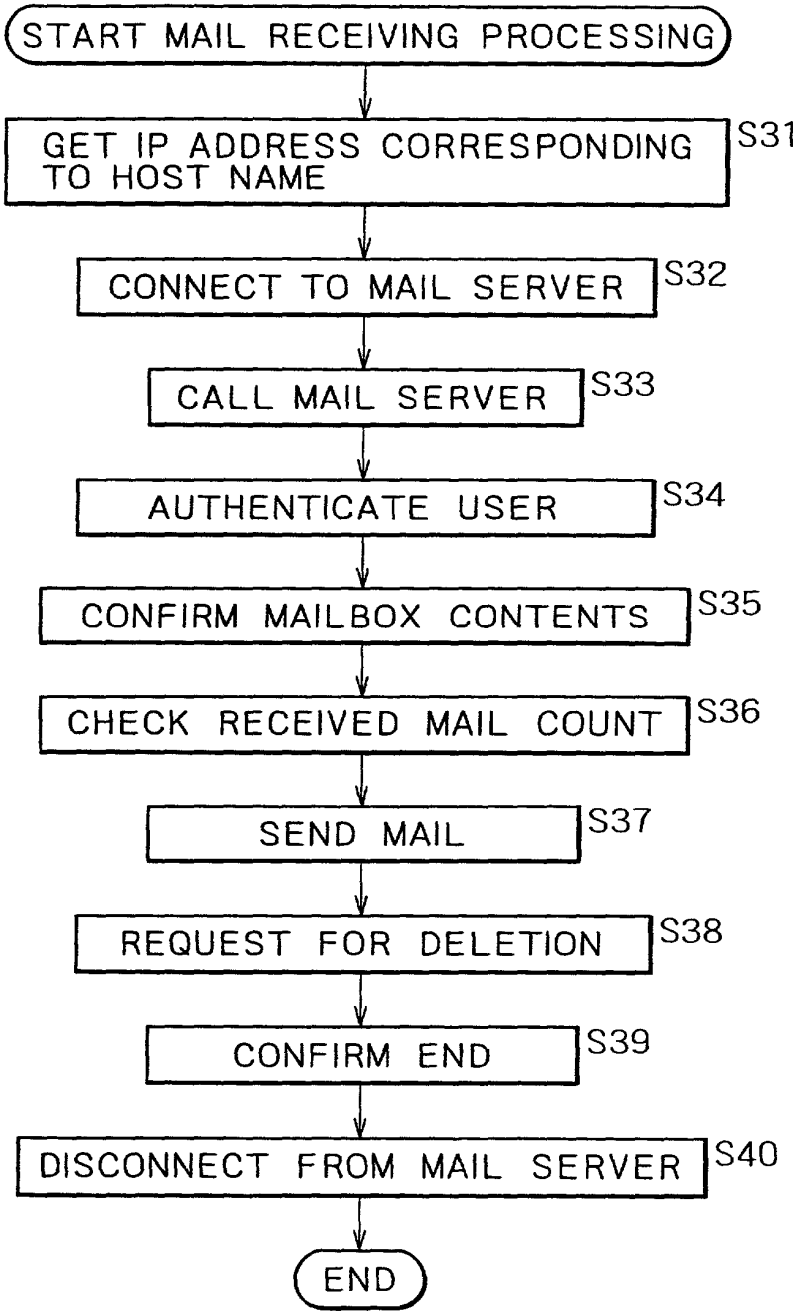

START MAIL RECEIVING PROCESSING
GET IP ADDRESS CORRESPONDING TO HOST NAME
S31
CONNECT TO MAIL SERVER
S32
CALL MAIL SERVER
S33
AUTHENTICATE USER
S34
CONFIRM MAILBOX CONTENTS
S35
CHECK RECEIVED MAIL COUNT
S36
SEND MAIL
S37
REQUEST FOR DELETION
S38
CONFIRM END
S39
DISCONNECT FROM MAIL SERVER
S40
END

FIG. 24

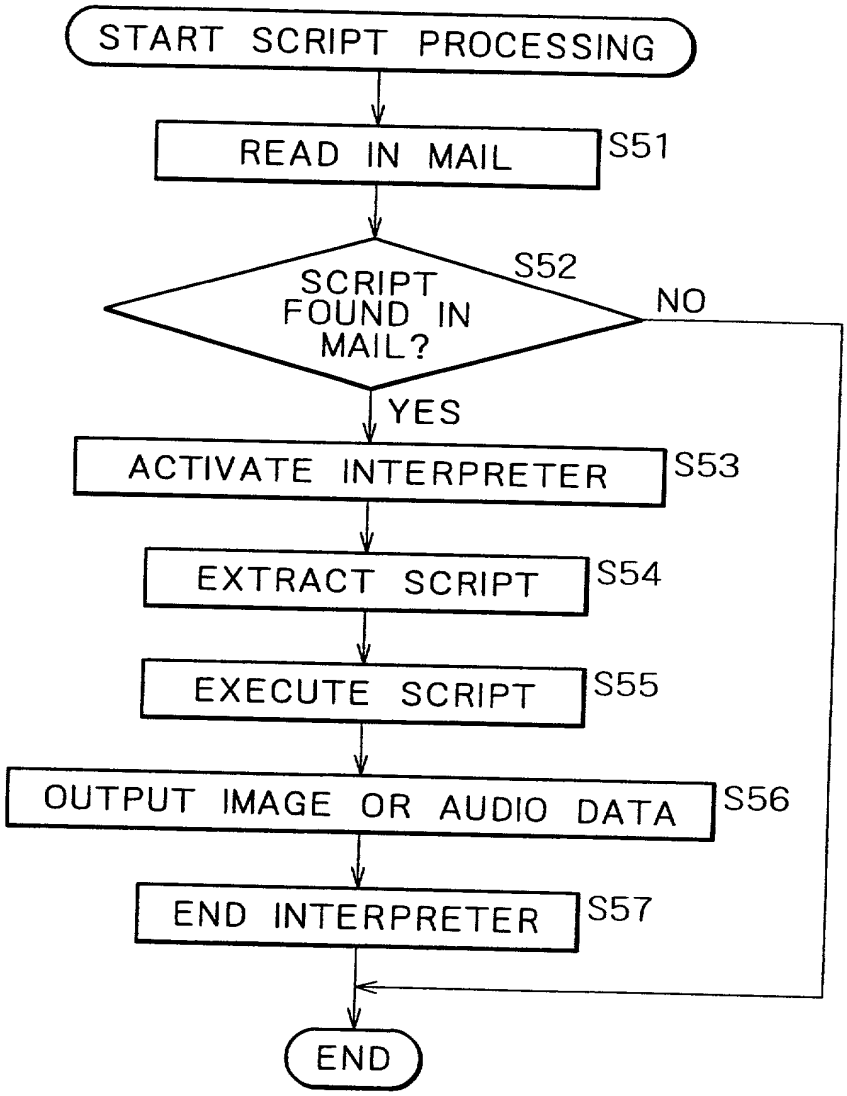
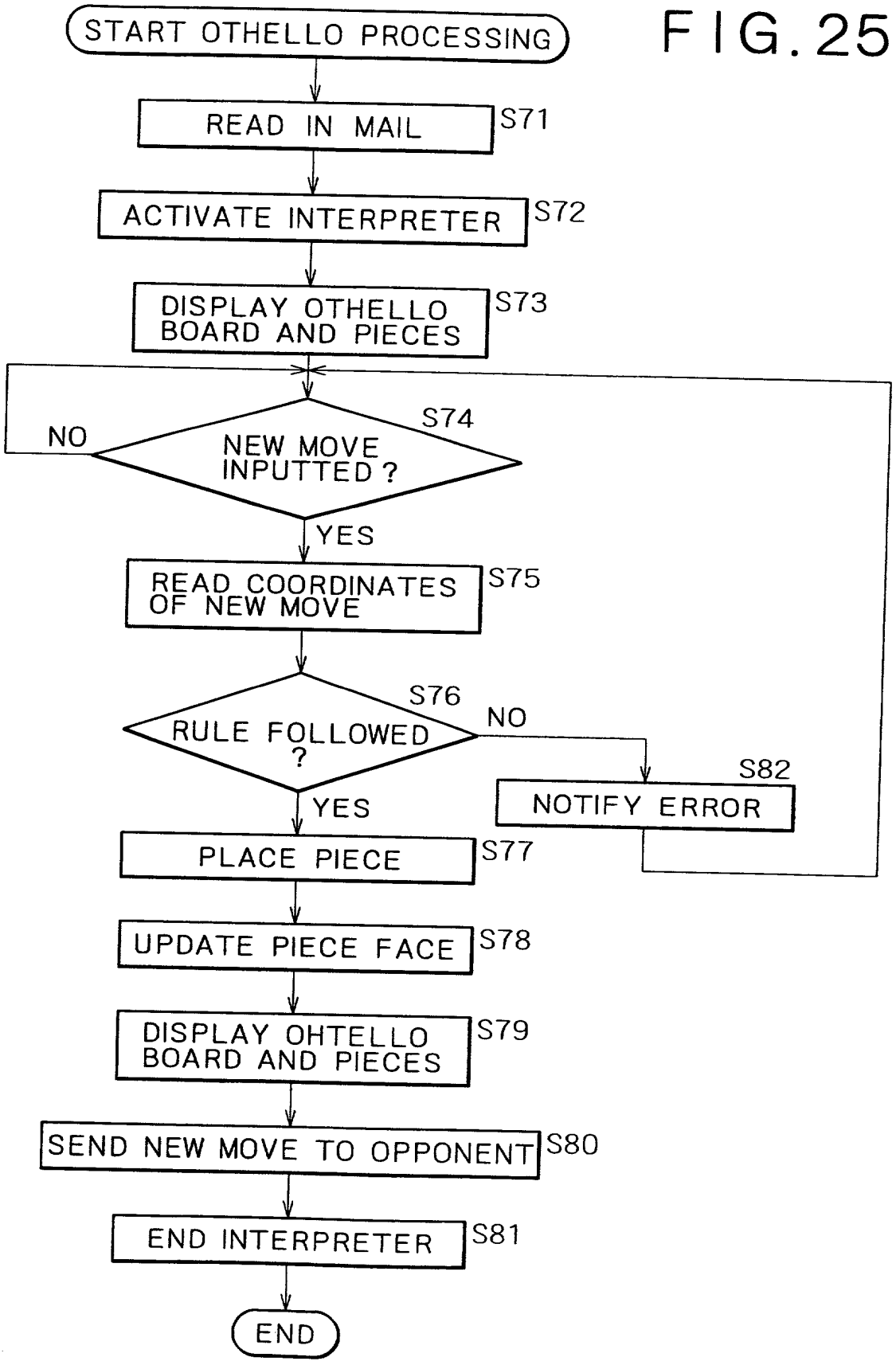

START SCRIPT PROCESSING
READ IN MAIL
S51
SCRIPT FOUND IN MAIL?
S52
NO
YES
ACTIVATE INTERPRETER
S53
EXTRACT SCRIPT
S54
EXECUTE SCRIPT
S55
OUTPUT IMAGE OR AUDIO DATA
S56
END INTERPRETER
S57
END

FIG. 25


START OTHELLO PROCESSING
READ IN MAIL
S71
ACTIVATE INTERPRETER
S72
DISPLAY OTHELLO BOARD AND PIECES
S73
NEW MOVE INPUTTED ?
S74
NO
YES
READ COORDINATES OF NEW MOVE
S75
RULE FOLLOWED ?
S76
NO
YES
NOTIFY ERROR
S82
PLACE PIECE
S77
UPDATE PIECE FACE
S78
DISPLAY OHTELLO BOARD AND PIECES
S79
SEND NEW MOVE TO OPPONENT
S80
END INTERPRETER
S81
END

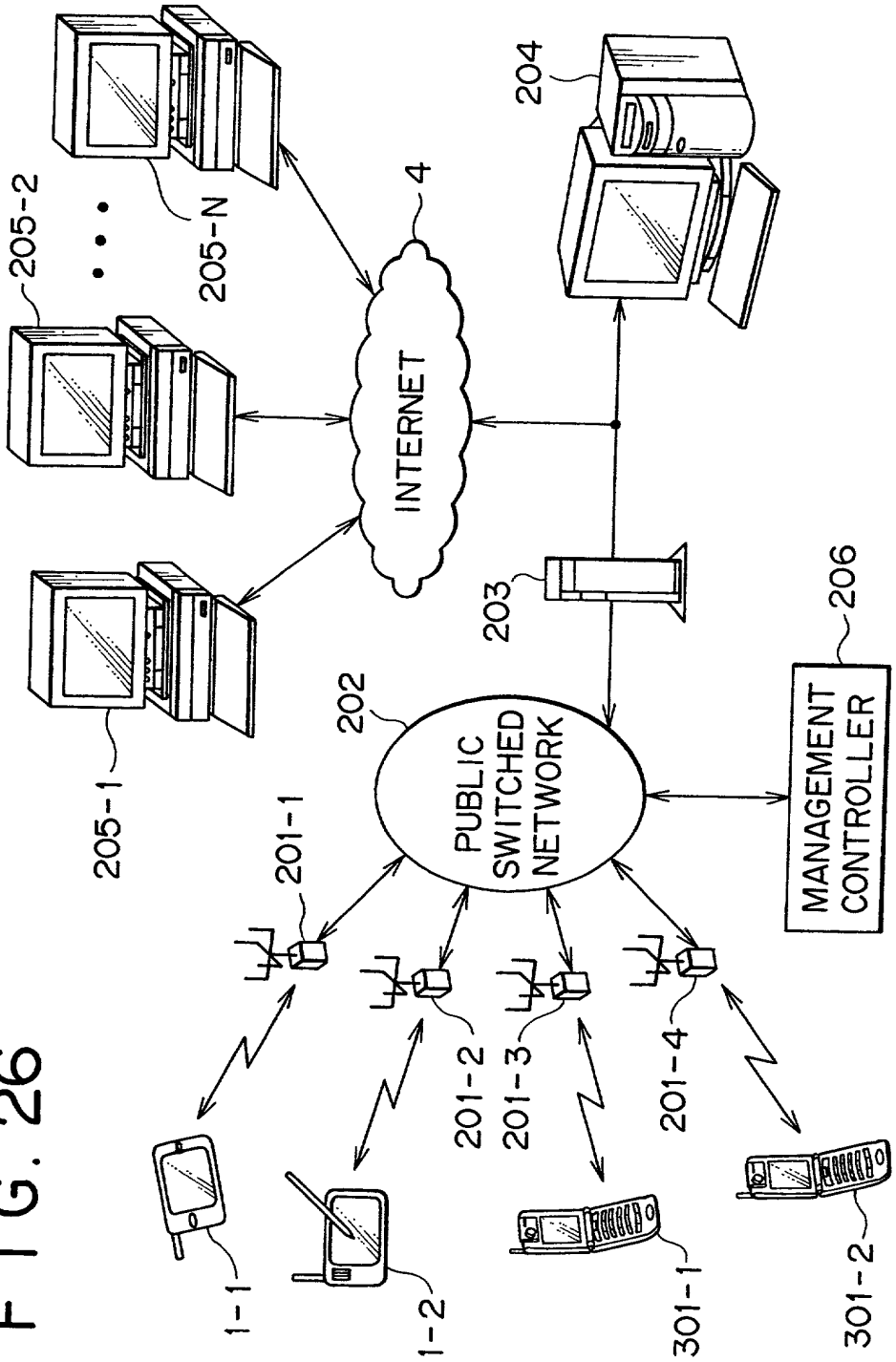

205-2
205-N
205-1
4
INTERNET
204
203
206
202
PUBLIC SWITCHED NETWORK
MANAGEMENT CONTROLLER
201-1
201-2
201-3
201-4
1-1
1-2
301-1
301-2

FIG. 26

FIG. 27

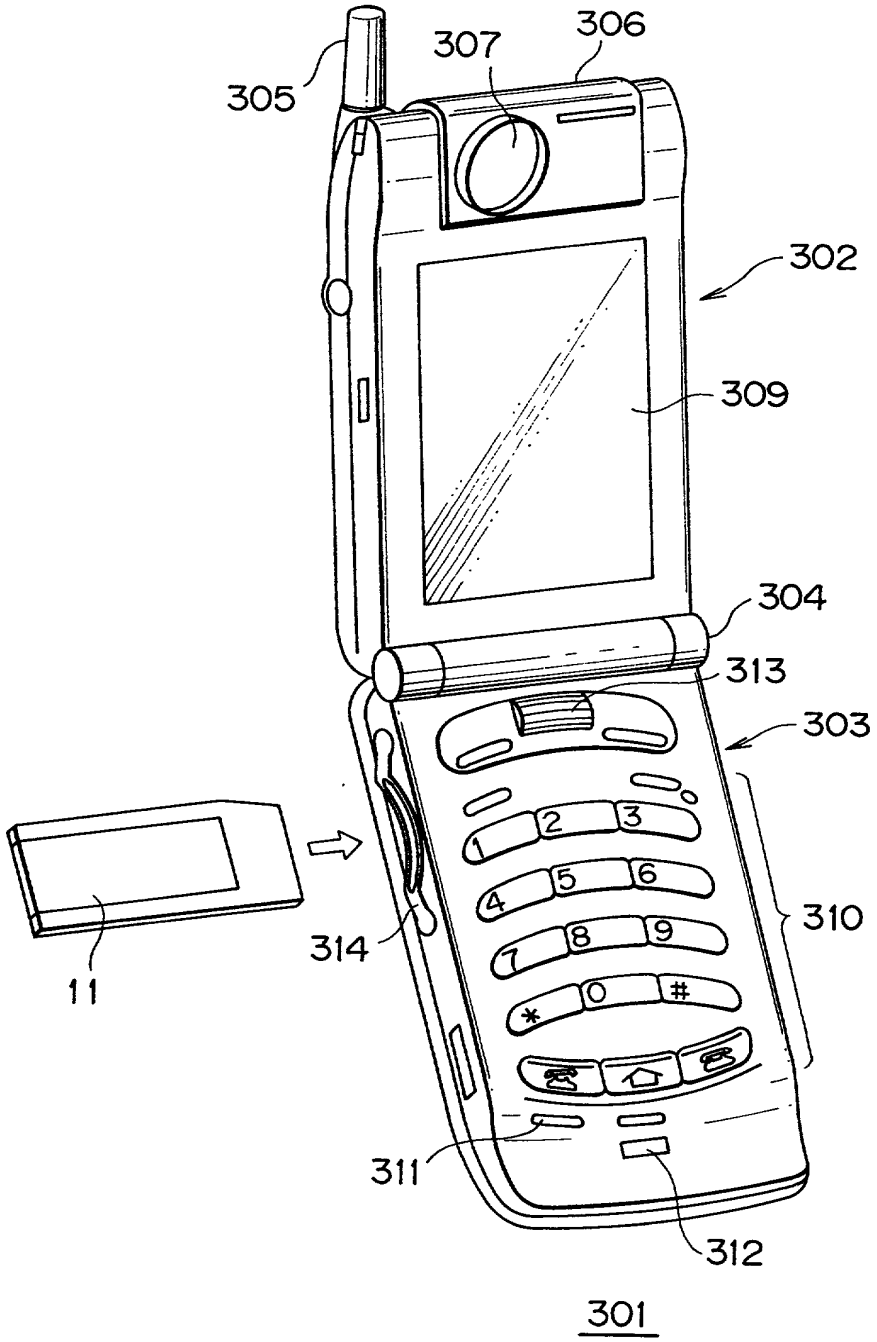

305
307
306
302
309
304
313
303
1
2
3
4
5
6
7
8
9
*
0
#
310
314
11
311
312
301

FIG. 28

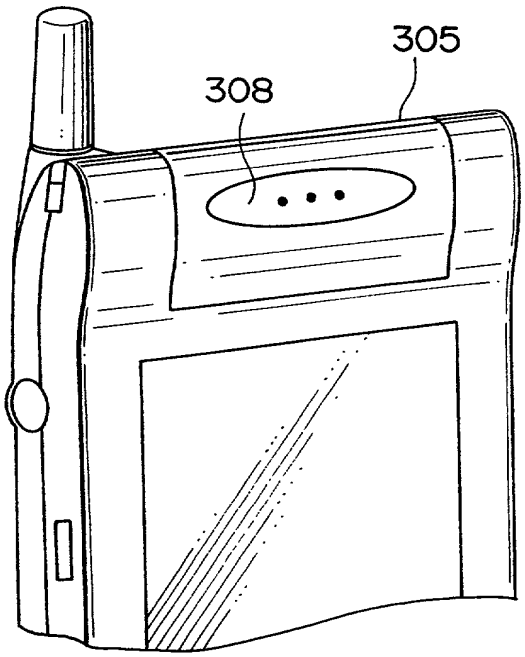


FIG. 29

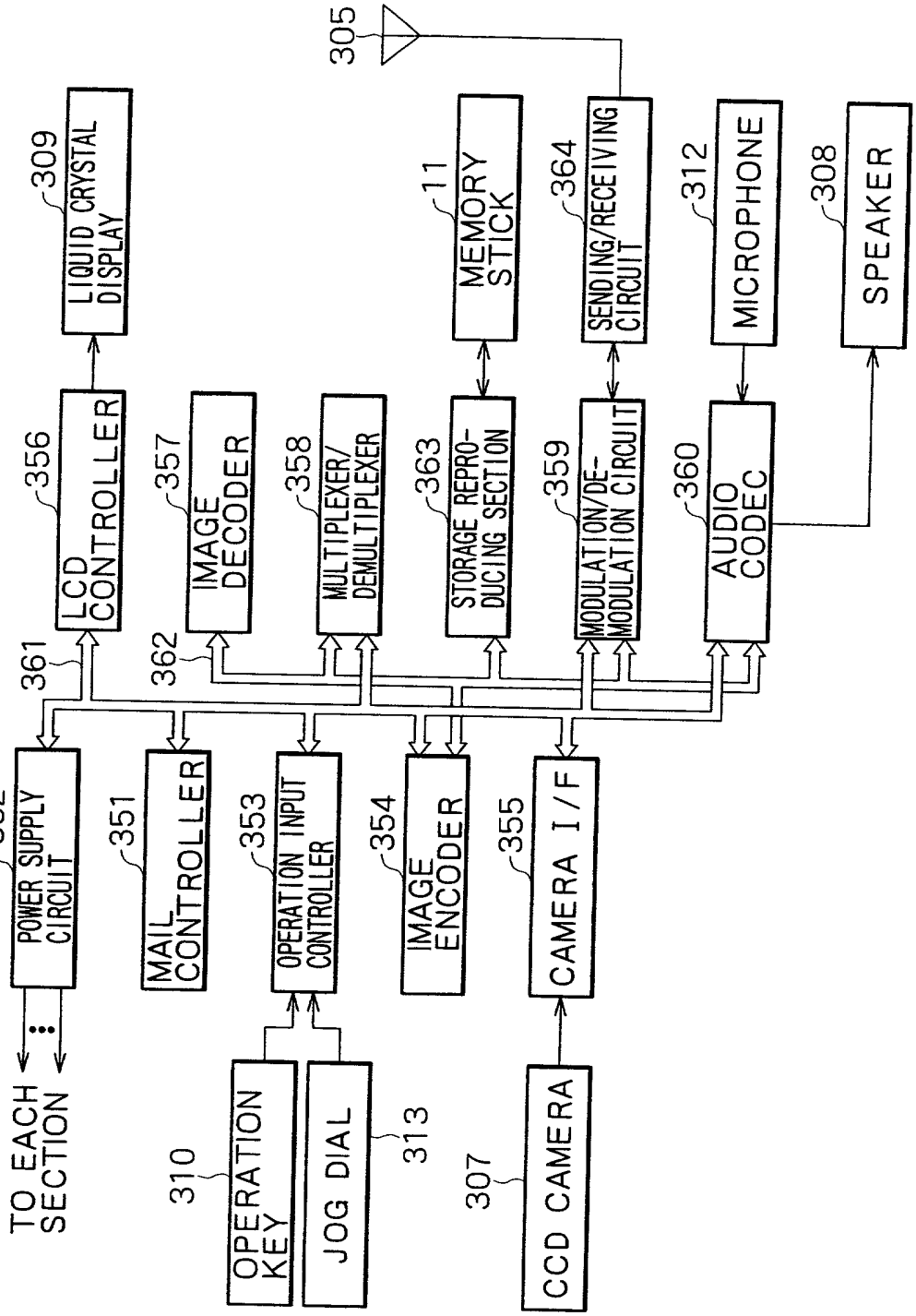

305
309
LIQUID CRYSTAL DISPLAY
11
MEMORY STICK
364
SENDING/RECEIVING CIRCUIT
312
MICROPHONE
308
SPEAKER
356
LCD CONTROLLER
357
IMAGE DECODER
358
MULTIPLEXER/ DEMULTIPLEXER
363
STORAGE REPRO-DUCING SECTION
359
MODULATION/DE-MODULATION CIRCUIT
360
AUDIO CODEC
361
362
352
POWER SUPPLY CIRCUIT
351
MAIL CONTROLLER
353
OPERATION INPUT CONTROLLER
354
IMAGE ENCODER
355
CAMERA I/F
TO EACH SECTION
310
OPERATION KEY
313
JOG DIAL
307
CCD CAMERA

FIG. 30

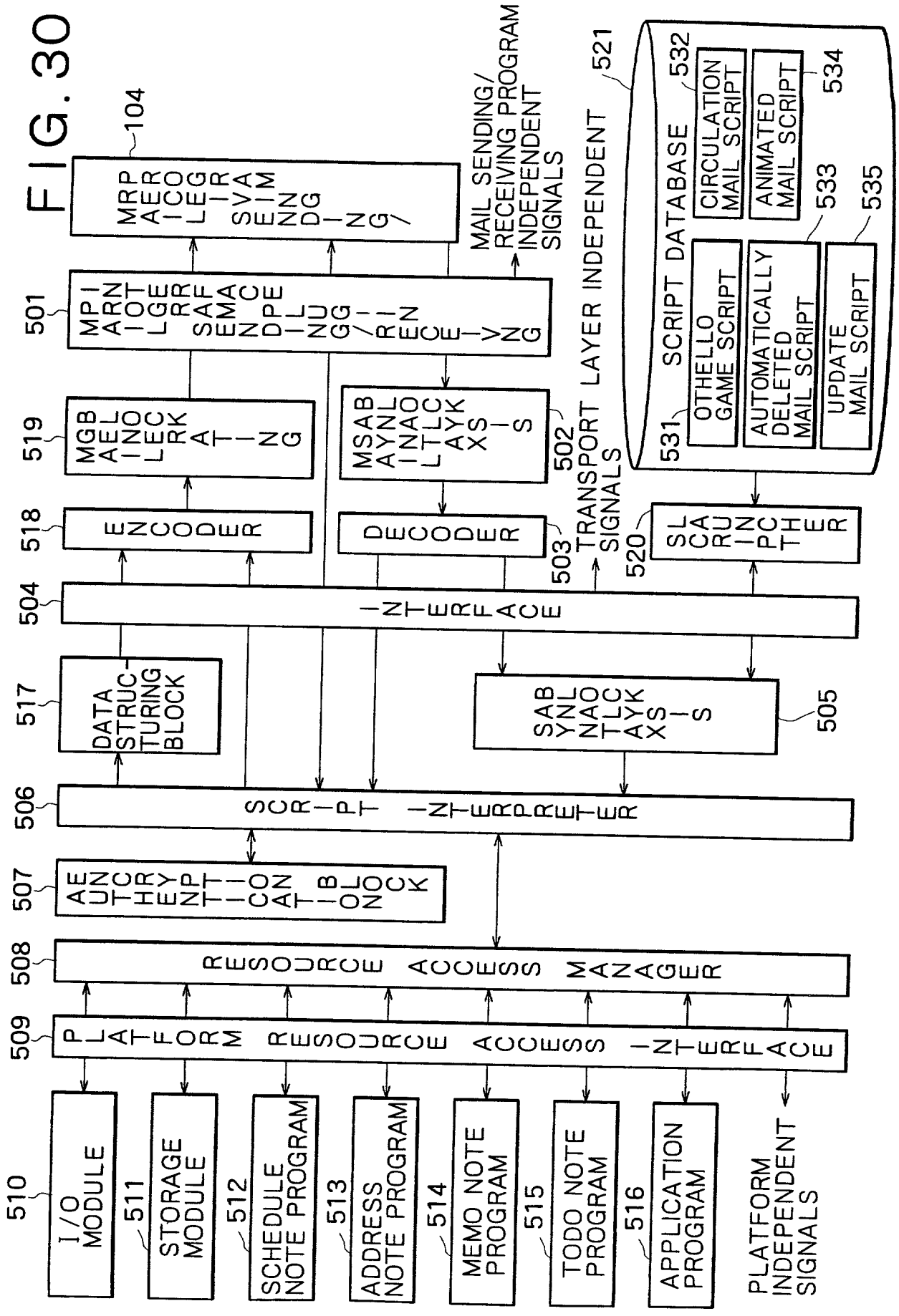

104
MRP
AER
ICO
LEG
R
SVA
EIM
NN
DG
NG
MAIL SENDING/
RECEIVING PROGRAM
INDEPENDENT
SIGNALS
521
SCRIPT DATABASE
532
CIRCULATION
MAIL SCRIPT
534
ANIMATED
MAIL SCRIPT
533
535
501
MPI
ARN
IOT
LGE
RR
SAF
EMA
CO
NDPE
NU
GG
RI
EN
CE
VN
G
OTHELLO
GAME SCRIPT
531
AUTOMATICALLY
DELETED
MAIL SCRIPT
UPDATE
MAIL SCRIPT
519
MGB
AEL
INO
LEC
RK
A
NG
502
MSAB
AYNL
INAO
LTLC
AYK
XS
S
518
ENCODER
DECODER
503
TRANSPORT LAYER INDEPENDENT
SIGNALS
520
SL
CA
RU
IN
PC
TH
ER
504
INTERFACE
517
DATA
STRUC
TURING
BLOCK
SAB
YNL
NAO
TLC
AYK
XS
S
505
506
SCRIPT INTERPRETER
507
AE
UN
TC
HR
EY
NP
TT
CO
AN
TT
OL
NO
CK
508
RESOURCE ACCESS MANAGER
509
PLATFORM RESOURCE ACCESS INTERFACE
510
I/O
MODULE
511
STORAGE
MODULE
512
SCHEDULE
NOTE PROGRAM
513
ADDRESS
NOTE PROGRAM
514
MEMO NOTE
PROGRAM
515
TODO NOTE
PROGRAM
516
APPLICATION
PROGRAM
PLATFORM
INDEPENDENT
SIGNALS

FIG. 31

BODY

```
To: "Someone" <someone@sony.co.jp>
Subject:othello
MIME-Version: 1.0
Content-Type: multipart/mixed;
boundary="----=_NextPart_000_0011_01BFA9E7.2EE28580"

------=_NextPart_000_0011_01BFA9E7.2EE28580
Content-Type: text/plain;
            charset="iso-2022-jp"
Content-Transfer-Encoding: 7bit

Second move of Othello
```

SCRIPT

```
------=_NextPart_000_0011_01BFA9E7.2EE28580
Content-Type: application/x-emma

<SCRIPT LANGUAGE=emmascript>
function othello() {
        show() ;
}
function ontap() {
        var x = getx() ;
        var y = gety() ;
        if(check(x,y)==false) {
            confirm("error")
            return;
        }
        update(x,y);
        Sendmail(getsender());
        exit;
}
function onload() {
        othello() ;
}
...
</SCRIPT>
</SIGNATURE>
347a9d8684ab96533fb6b51906facf9
</SIGNATURE>

------=_NextPart_000_0011_01BFA9E7.2EE28580--

----Next_Part(Wed_Apr_19_11:42:48_2000_705)----
```

FIG. 32

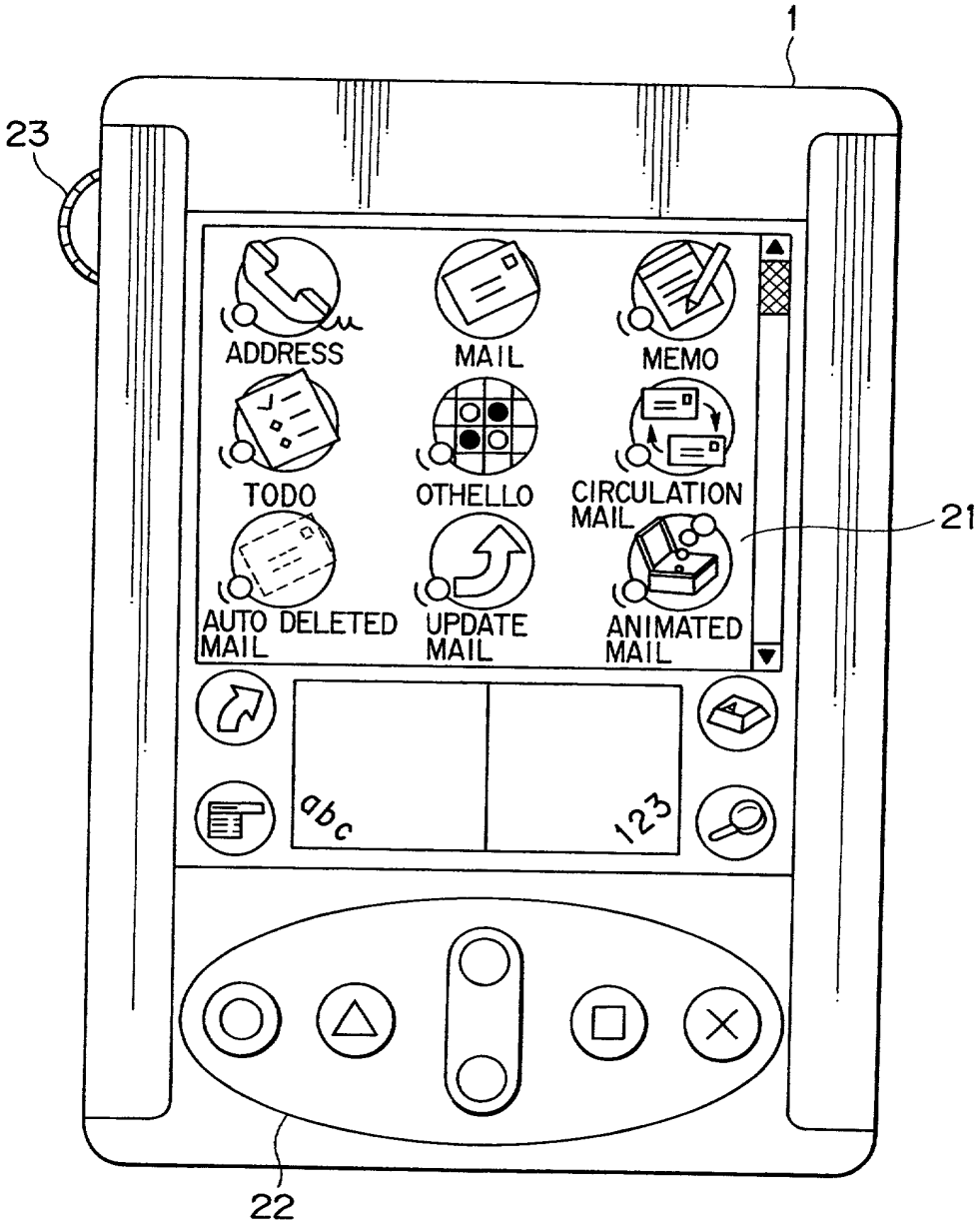

1
23
ADDRESS
MAIL
MEMO
TODO
OTHELLO
CIRCULATION MAIL
21
AUTO DELETED MAIL
UPDATE MAIL
ANIMATED MAIL
abc
123
22

FIG. 33

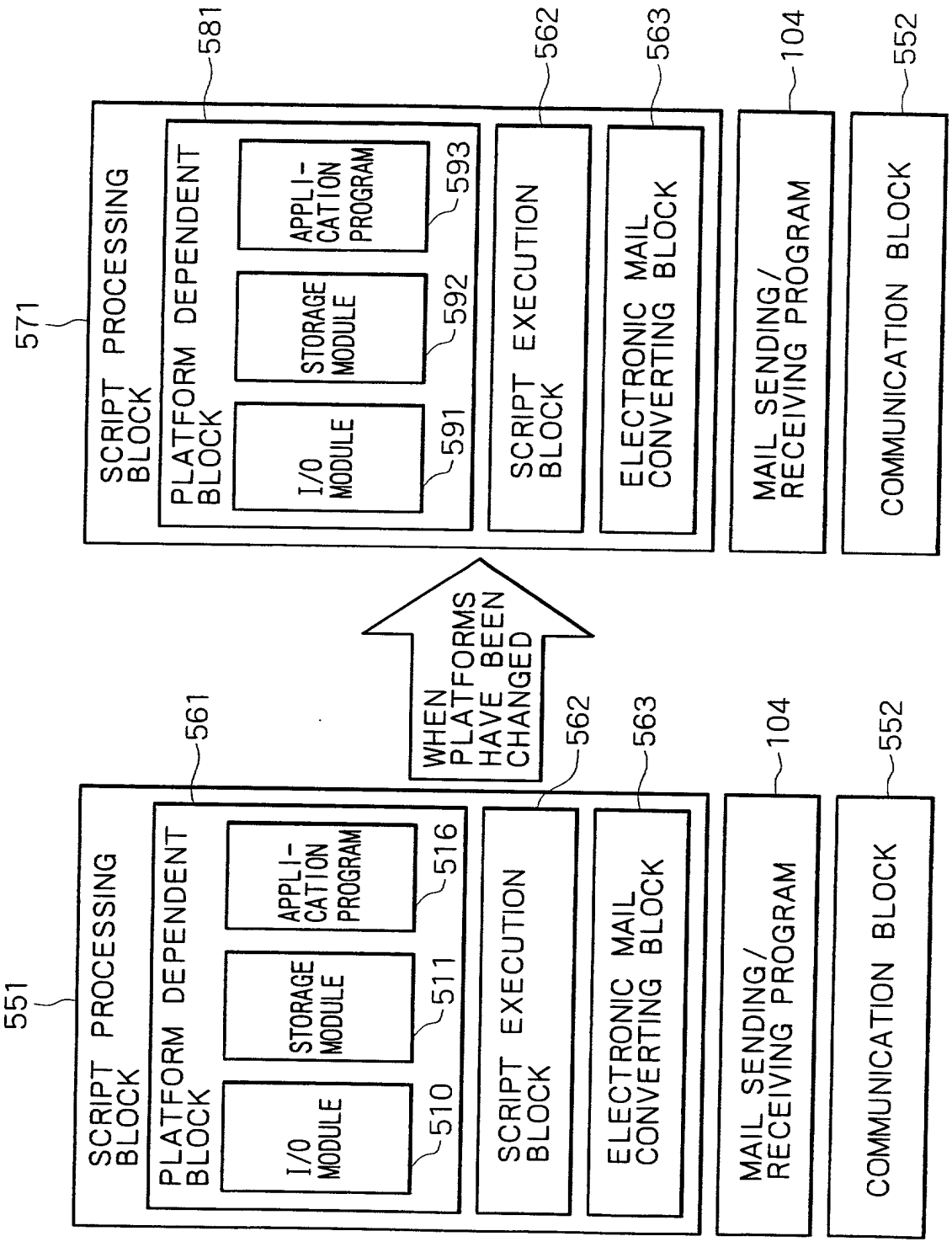

551
SCRIPT PROCESSING BLOCK
PLATFORM DEPENDENT BLOCK
I/O MODULE
510
STORAGE MODULE
511
APPLI-CATION PROGRAM
516
561
SCRIPT EXECUTION BLOCK
562
ELECTRONIC MAIL CONVERTING BLOCK
563
MAIL SENDING/ RECEIVING PROGRAM
104
COMMUNICATION BLOCK
552
WHEN PLATFORMS HAVE BEEN CHANGED
571
SCRIPT PROCESSING BLOCK
PLATFORM DEPENDENT BLOCK
I/O MODULE
591
STORAGE MODULE
592
APPLI-CATION PROGRAM
593
581
SCRIPT EXECUTION BLOCK
562
ELECTRONIC MAIL CONVERTING BLOCK
563
MAIL SENDING/ RECEIVING PROGRAM
104
COMMUNICATION BLOCK
552

FIG. 34

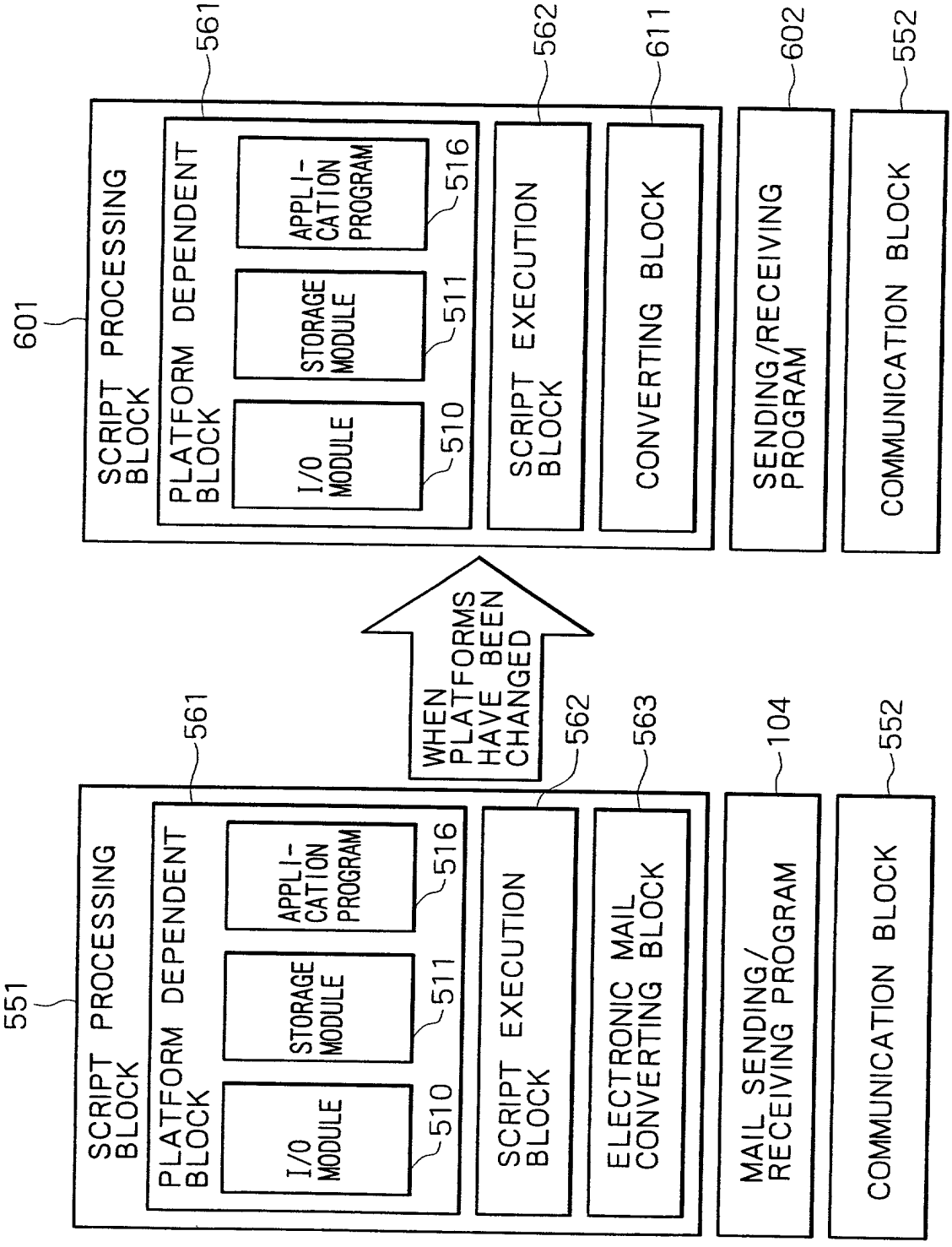

601
SCRIPT PROCESSING BLOCK
PLATFORM DEPENDENT BLOCK
I/O MODULE
510
STORAGE MODULE
511
APPLI-CATION PROGRAM
516
561
SCRIPT EXECUTION BLOCK
562
CONVERTING BLOCK
611
SENDING/RECEIVING PROGRAM
602
COMMUNICATION BLOCK
552
WHEN PLATFORMS HAVE BEEN CHANGED
551
SCRIPT PROCESSING BLOCK
PLATFORM DEPENDENT BLOCK
I/O MODULE
510
STORAGE MODULE
511
APPLI-CATION PROGRAM
516
561
SCRIPT EXECUTION BLOCK
562
ELECTRONIC MAIL CONVERTING BLOCK
563
MAIL SENDING/ RECEIVING PROGRAM
104
COMMUNICATION BLOCK
552

FIG. 35

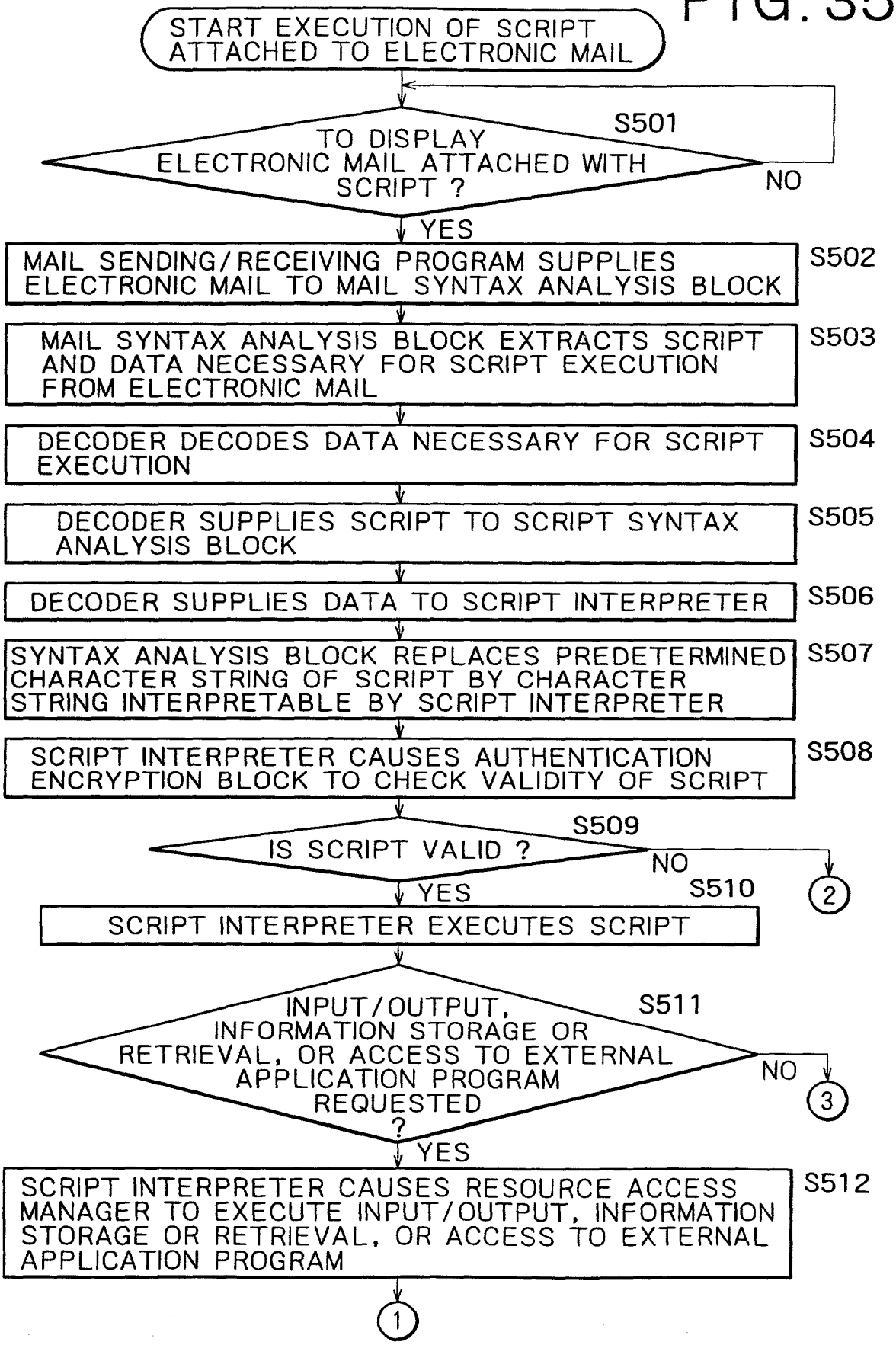

START EXECUTION OF SCRIPT ATTACHED TO ELECTRONIC MAIL
S501
TO DISPLAY ELECTRONIC MAIL ATTACHED WITH SCRIPT ?
NO
YES
MAIL SENDING/RECEIVING PROGRAM SUPPLIES ELECTRONIC MAIL TO MAIL SYNTAX ANALYSIS BLOCK
S502
MAIL SYNTAX ANALYSIS BLOCK EXTRACTS SCRIPT AND DATA NECESSARY FOR SCRIPT EXECUTION FROM ELECTRONIC MAIL
S503
DECODER DECODES DATA NECESSARY FOR SCRIPT EXECUTION
S504
DECODER SUPPLIES SCRIPT TO SCRIPT SYNTAX ANALYSIS BLOCK
S505
DECODER SUPPLIES DATA TO SCRIPT INTERPRETER
S506
SYNTAX ANALYSIS BLOCK REPLACES PREDETERMINED CHARACTER STRING OF SCRIPT BY CHARACTER STRING INTERPRETABLE BY SCRIPT INTERPRETER
S507
SCRIPT INTERPRETER CAUSES AUTHENTICATION ENCRYPTION BLOCK TO CHECK VALIDITY OF SCRIPT
S508
S509
IS SCRIPT VALID ?
NO
2
YES
S510
SCRIPT INTERPRETER EXECUTES SCRIPT
S511
INPUT/OUTPUT, INFORMATION STORAGE OR RETRIEVAL, OR ACCESS TO EXTERNAL APPLICATION PROGRAM REQUESTED ?
NO
3
YES
SCRIPT INTERPRETER CAUSES RESOURCE ACCESS MANAGER TO EXECUTE INPUT/OUTPUT, INFORMATION STORAGE OR RETRIEVAL, OR ACCESS TO EXTERNAL APPLICATION PROGRAM
S512
1

FIG. 36

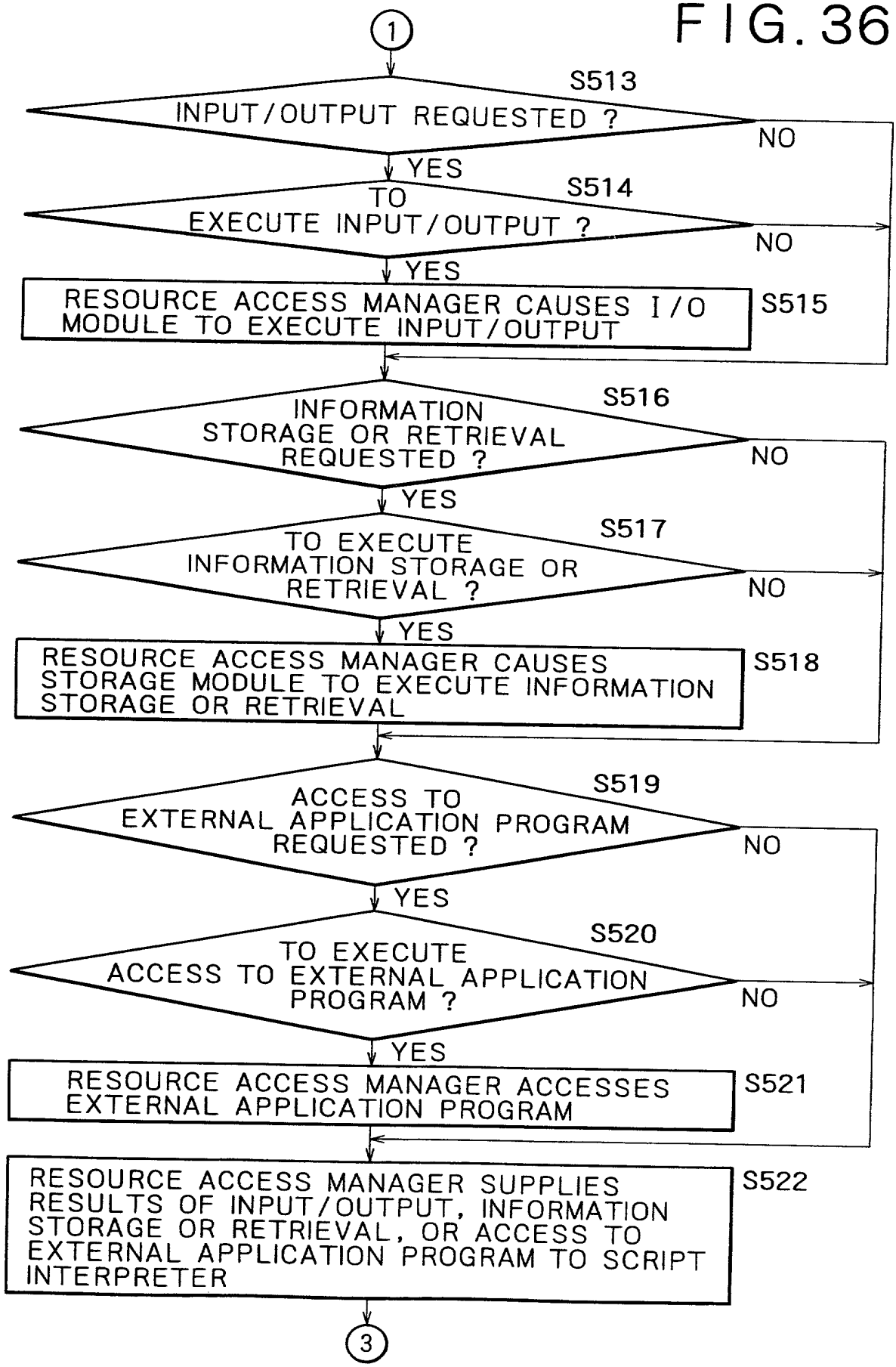

1
S513
INPUT/OUTPUT REQUESTED ?
NO
YES
S514
TO EXECUTE INPUT/OUTPUT ?
NO
YES
RESOURCE ACCESS MANAGER CAUSES I/O MODULE TO EXECUTE INPUT/OUTPUT
S515
S516
INFORMATION STORAGE OR RETRIEVAL REQUESTED ?
NO
YES
S517
TO EXECUTE INFORMATION STORAGE OR RETRIEVAL ?
NO
YES
RESOURCE ACCESS MANAGER CAUSES STORAGE MODULE TO EXECUTE INFORMATION STORAGE OR RETRIEVAL
S518
S519
ACCESS TO EXTERNAL APPLICATION PROGRAM REQUESTED ?
NO
YES
S520
TO EXECUTE ACCESS TO EXTERNAL APPLICATION PROGRAM ?
NO
YES
RESOURCE ACCESS MANAGER ACCESSES EXTERNAL APPLICATION PROGRAM
S521
RESOURCE ACCESS MANAGER SUPPLIES RESULTS OF INPUT/OUTPUT, INFORMATION STORAGE OR RETRIEVAL, OR ACCESS TO EXTERNAL APPLICATION PROGRAM TO SCRIPT INTERPRETER
S522
3

FIG. 37

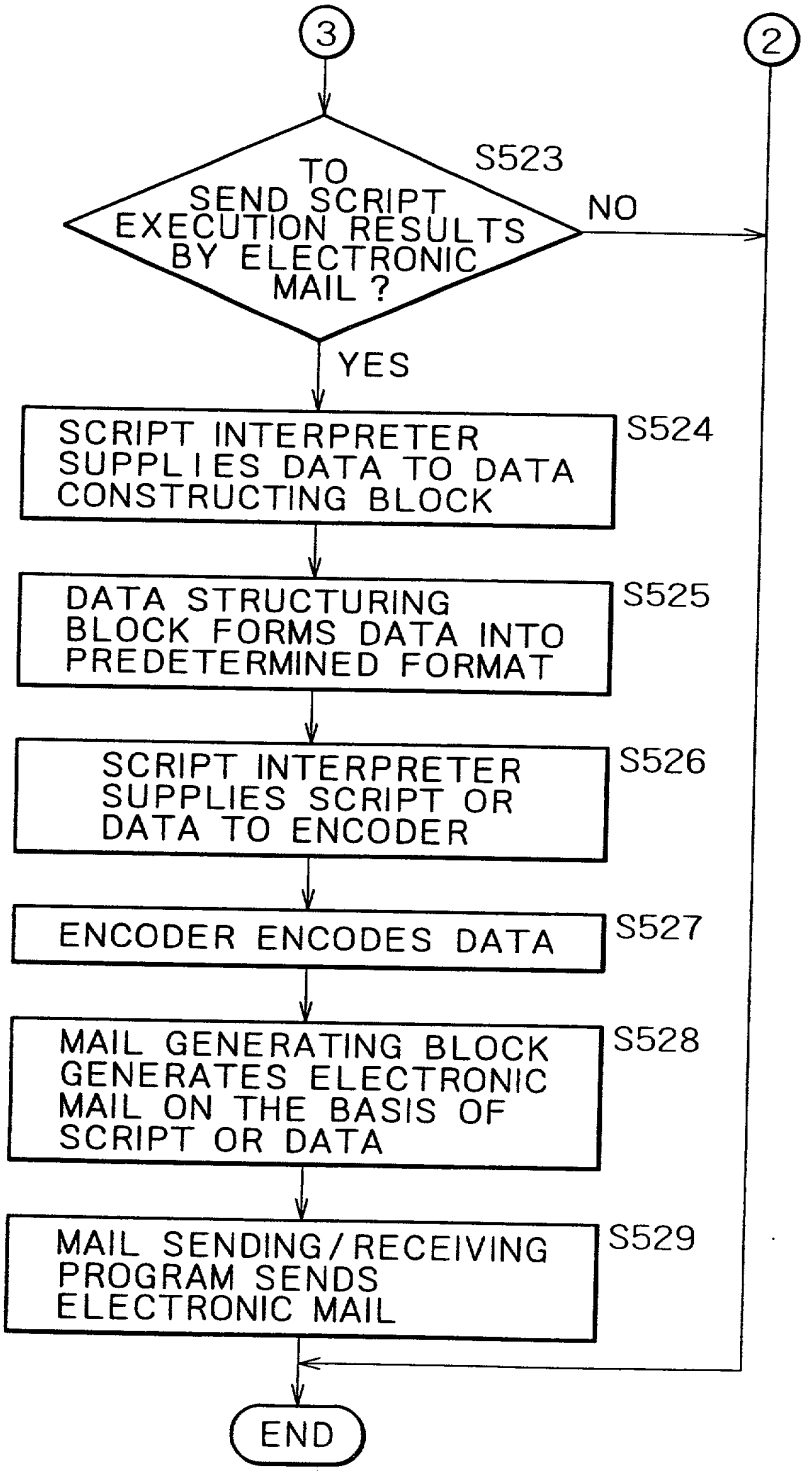

3
2
TO SEND SCRIPT EXECUTION RESULTS BY ELECTRONIC MAIL ?
S523
NO
YES
SCRIPT INTERPRETER SUPPLIES DATA TO DATA CONSTRUCTING BLOCK
S524
DATA STRUCTURING BLOCK FORMS DATA INTO PREDETERMINED FORMAT
S525
SCRIPT INTERPRETER SUPPLIES SCRIPT OR DATA TO ENCODER
S526
ENCODER ENCODES DATA
S527
MAIL GENERATING BLOCK GENERATES ELECTRONIC MAIL ON THE BASIS OF SCRIPT OR DATA
S528
MAIL SENDING/RECEIVING PROGRAM SENDS ELECTRONIC MAIL
S529
END

FIG. 38

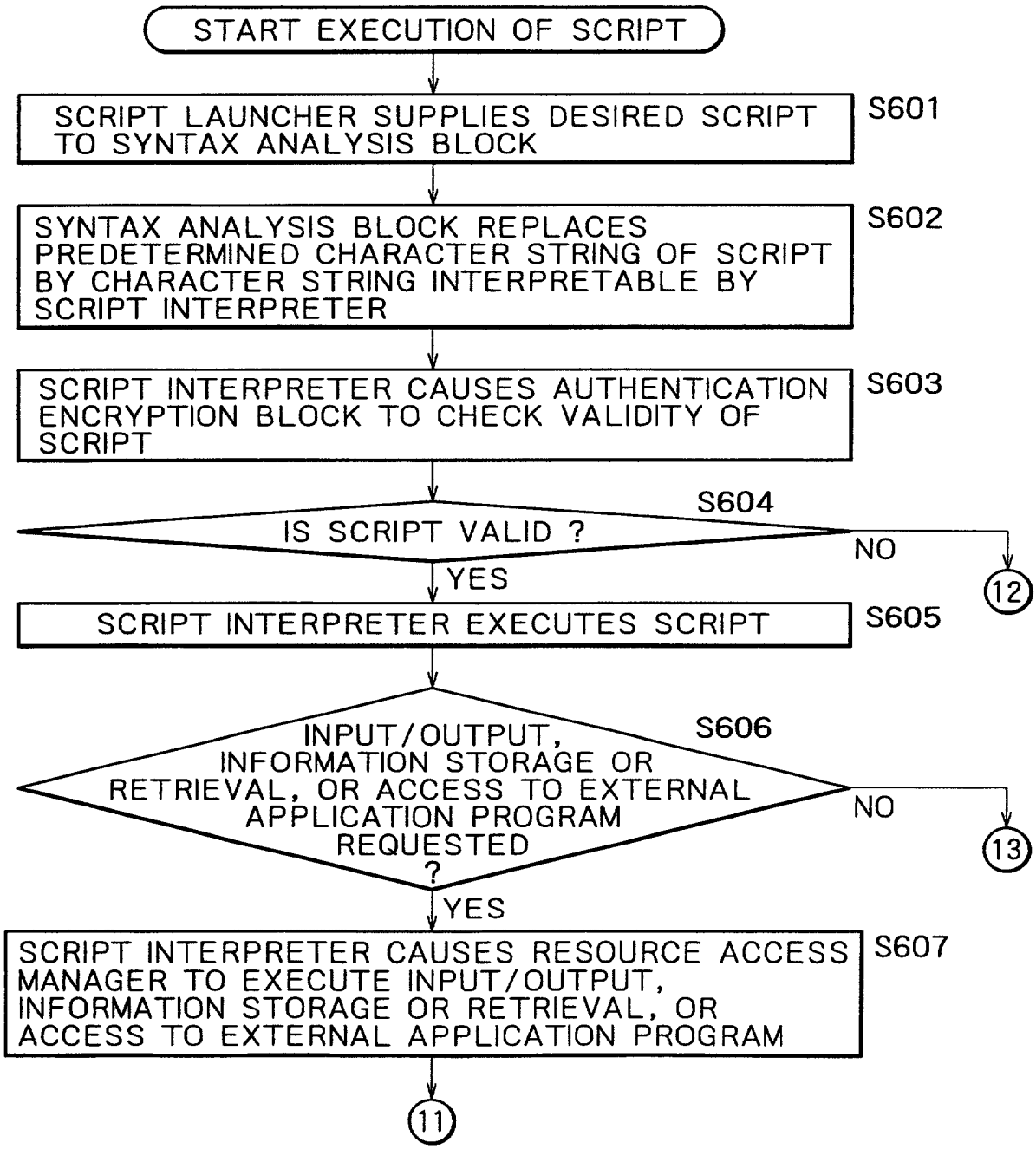

START EXECUTION OF SCRIPT
SCRIPT LAUNCHER SUPPLIES DESIRED SCRIPT TO SYNTAX ANALYSIS BLOCK
S601
SYNTAX ANALYSIS BLOCK REPLACES PREDETERMINED CHARACTER STRING OF SCRIPT BY CHARACTER STRING INTERPRETABLE BY SCRIPT INTERPRETER
S602
SCRIPT INTERPRETER CAUSES AUTHENTICATION ENCRYPTION BLOCK TO CHECK VALIDITY OF SCRIPT
S603
S604
IS SCRIPT VALID ?
NO
12
YES
SCRIPT INTERPRETER EXECUTES SCRIPT
S605
S606
INPUT/OUTPUT, INFORMATION STORAGE OR RETRIEVAL, OR ACCESS TO EXTERNAL APPLICATION PROGRAM REQUESTED ?
NO
13
YES
SCRIPT INTERPRETER CAUSES RESOURCE ACCESS MANAGER TO EXECUTE INPUT/OUTPUT, INFORMATION STORAGE OR RETRIEVAL, OR ACCESS TO EXTERNAL APPLICATION PROGRAM
S607
11

FIG. 39

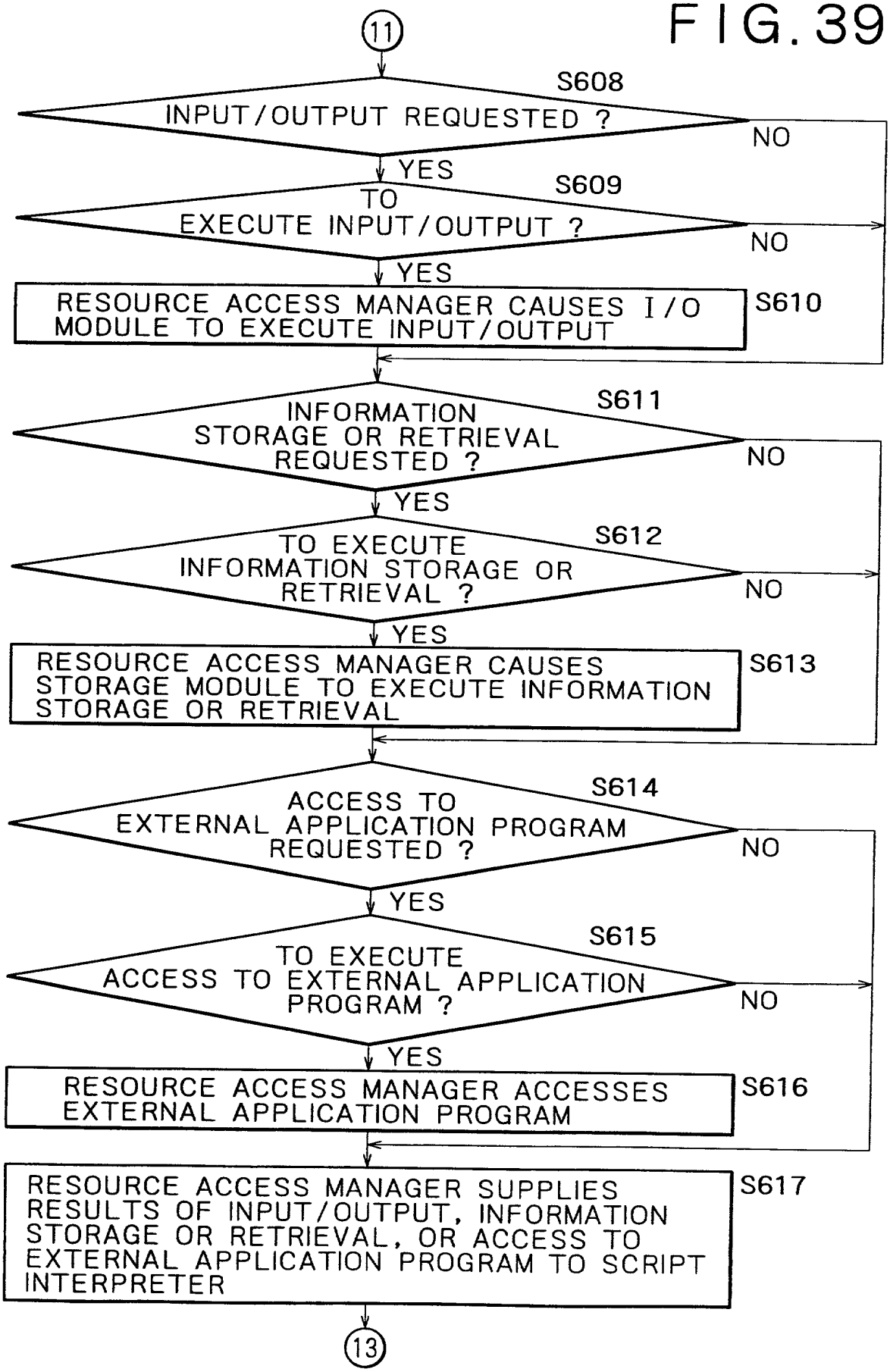
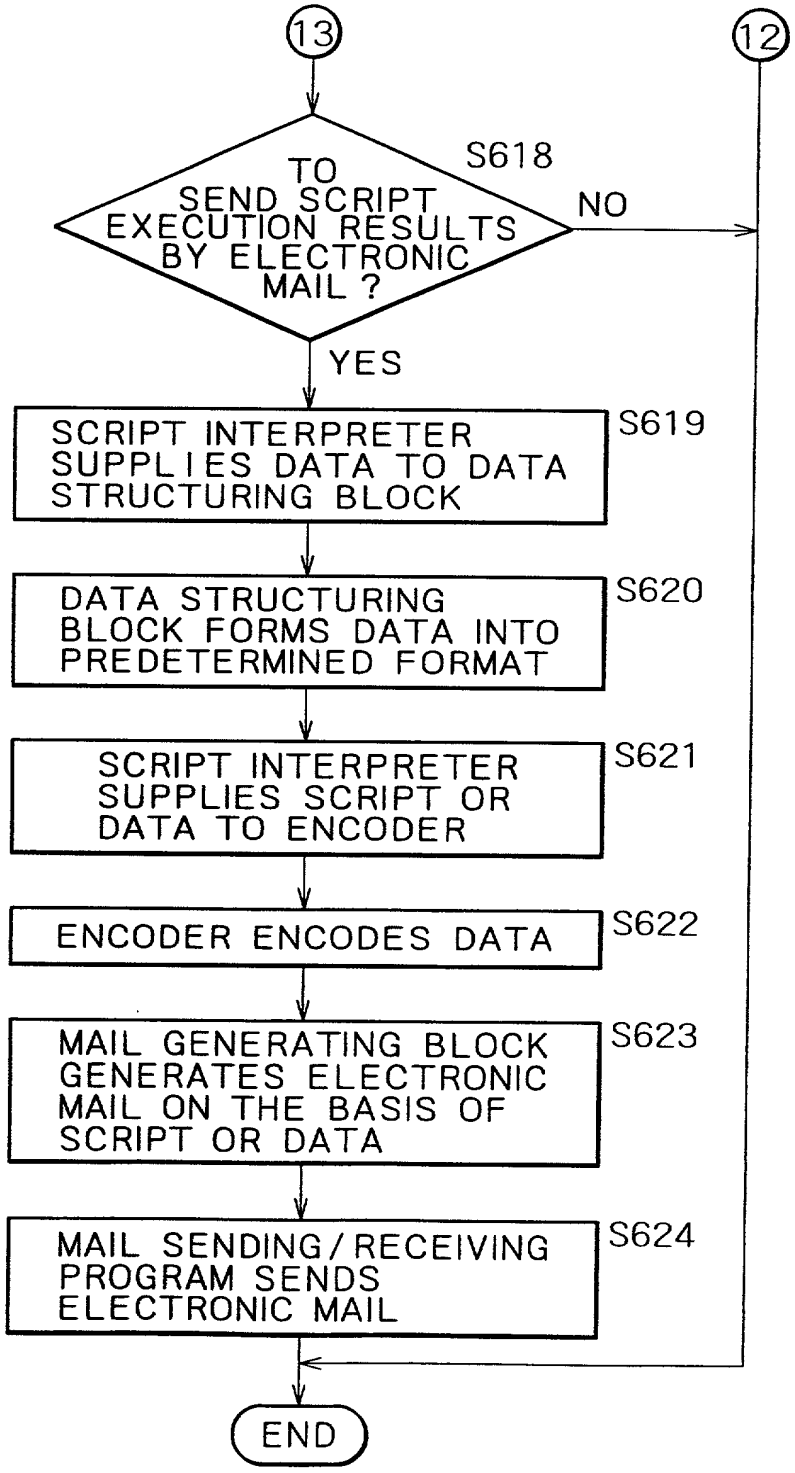

11
S608
INPUT/OUTPUT REQUESTED ?
NO
YES
S609
TO EXECUTE INPUT/OUTPUT ?
NO
YES
RESOURCE ACCESS MANAGER CAUSES I/O MODULE TO EXECUTE INPUT/OUTPUT
S610
S611
INFORMATION STORAGE OR RETRIEVAL REQUESTED ?
NO
YES
S612
TO EXECUTE INFORMATION STORAGE OR RETRIEVAL ?
NO
YES
RESOURCE ACCESS MANAGER CAUSES STORAGE MODULE TO EXECUTE INFORMATION STORAGE OR RETRIEVAL
S613
S614
ACCESS TO EXTERNAL APPLICATION PROGRAM REQUESTED ?
NO
YES
S615
TO EXECUTE ACCESS TO EXTERNAL APPLICATION PROGRAM ?
NO
YES
RESOURCE ACCESS MANAGER ACCESSES EXTERNAL APPLICATION PROGRAM
S616
RESOURCE ACCESS MANAGER SUPPLIES RESULTS OF INPUT/OUTPUT, INFORMATION STORAGE OR RETRIEVAL, OR ACCESS TO EXTERNAL APPLICATION PROGRAM TO SCRIPT INTERPRETER
S617
13

FIG. 40


13
12
S618
TO SEND SCRIPT EXECUTION RESULTS BY ELECTRONIC MAIL ?
NO
YES
SCRIPT INTERPRETER SUPPLIES DATA TO DATA STRUCTURING BLOCK
S619
DATA STRUCTURING BLOCK FORMS DATA INTO PREDETERMINED FORMAT
S620
SCRIPT INTERPRETER SUPPLIES SCRIPT OR DATA TO ENCODER
S621
ENCODER ENCODES DATA
S622
MAIL GENERATING BLOCK GENERATES ELECTRONIC MAIL ON THE BASIS OF SCRIPT OR DATA
S623
MAIL SENDING/RECEIVING PROGRAM SENDS ELECTRONIC MAIL
S624
END